











A GLOSSARY OF  
BIOLOGICAL, ANATOMICAL, AND  
PHYSIOLOGICAL TERMS.



# A GLOSSARY *OF BIOLOGICAL, ANATOMICAL, AND PHYSIOLOGICAL TERMS.*

BY

THOMAS DUNMAN,

*Lecturer on Physiology at the Birkbeck Institution, and Physical Science  
Lecturer at the Working Men's College.*



GRIFFITH AND FARRAN,  
CORNER OF ST. PAUL'S CHURCHYARD, LONDON.

MDCCCLXXIX.

610.3  
DUN/62

Uttarpara Jaikrishna Public Library  
Accn. No. 30270 Date 20.8.03.

[The rights of Translation and of Reproduction are reserved.]

Uttarpara Jayadev Public Library  
Acc. No. 30270 Date 28.8.03

## P R E F A C E.

---

EXPERIENCE both as a student and as a teacher having convinced me of the want of a Glossary of the numerous technical terms employed in the sciences of Anatomy, Physiology, and General Biology, I have been induced to prepare the present volume.

In it is attempted to place before the student the pronunciation, derivation, and definition of all those terms which are usually employed in that department of Biological science which treats of animal life, as set forth in such standard text-books as those of Huxley, Carpenter, Foster, Flower, and others. With the Botanical side of Biology but little has been attempted, only such terms having been included as are employed in Elementary General Biology as treated in the introductory text-book of Huxley and Martin, the object being rather to supply a want than to supplement existing works. Of Pathological terms only such have been included as are usually employed in the illustration of Physiological facts.

In order to conduce to correct pronunciation, the accented syllable in each word is marked, and where necessary the

usual vowel signs have been employed; the mark  $\circ$  over a vowel signifying that it is to be pronounced short, and the mark  $\circ$  signifying that the vowel over which it is placed is long. Where a letter is silent in pronunciation, it is printed in italics.

I have ventured to print the Greek roots in English characters, choosing rather to run the risk of offending the susceptibilities of the classical scholar, than to endanger the perfect clearness of the work to those to whom the Greek characters are not familiar.

The definitions, while concise, will, it is hoped, be found sufficiently full, and are in all cases given in their most modern acceptance.

Compiled at the request, and, primarily, for the benefit of my own students, this Glossary will, I hope, be found useful to all those who are preparing for the examinations of the Science and Art Department and other examining bodies, and especially to that large and deserving band of self-taught students to whom I shall be pleased to learn that it has been of service.

THOMAS DUNMAN.

LONDON, *August, 1878.*



# A GLOSSARY

OF

## BIOLOGICAL, ANATOMICAL, AND PHYSIOLOGICAL TERMS.

---

---

### A.

**Abdo'men** (L. *abdēre*, to conceal).—In the Vertebrata, the posterior part of the cavity of the trunk, which contains the principal viscera; in some of the Invertebrata, the hinder part of the body.

**Abdominalia**.—A subdivision of the Crustacea, the members of which have appendages on the abdomen, but none on the thorax.

**Abducen'tes** (L. *ab*, away from; *ducens*, leading).—The name given to the sixth pair of nerves which supplies the external rectus muscle of each eye, by which muscle the eyeball is rotated outwards, or away from the middle line.

**Abduc'tion** (L. *abduco*, I draw away).—The drawing away of a limb from the middle line.

**Abduc'tor ter'tii interno'dii secun'di dī'giti** (L. abductor of the third internode of the second digit).—A muscle found in both manus and pes in *Hylobates* (one of the *Anthropomorpha*), which is not at present known in any other mammal.

**Abiogē'nēsis** (Gr. *a*, not; *bios*, life; *gennēsis*, birth).—The production of living from not-living matter. Spontaneous generation.

**Abo'masum** (L. *ab*, away from, and *omasum*).—The fourth stomach of a ruminant, which leads from the third stomach or *omasum*.

**Abo'ral** (L. *ab*, away from; *ōs, ōris*, the mouth).—The opposite face in a star-fish to that which contains the mouth.

**Acalē'phæ** (Gr. *akalēphē*, a nettle).—The jelly-fishes or sea nettles.

**Acanthocēphala** (Gr. *akantha*, a thorn ; *kēphalē*, the head).—A group of parasitic Invertebrata having a number of recurved hooks on the proboscis.

**Acanthō'didæ** (Gr. *akanthōdēs*, thorny).—A sub-order of Ganoid fishes.

**Acanthō'pteri** (Gr. *akantha*, a thorn ; *pteron*, a wing or fin).—A group of Teleostean fishes having spiny fins.

**Acāri'na** (Gr. *akāri*, a mite).—A group of Arthropods which includes the mites and ticks.

**Accessō'rius ad ilio-costālem** (L. accessory to the *ilio-costalis*).—One of the dorsal muscles of the trunk.

**Accipitres** (L. *accipiter*, a hawk).—In the old classification of birds, the order which included the birds of prey.

**Acēphalous** (Gr. *a*, without ; *kēphalē*, the head).—Without a distinct head.

**Acer'vulus cēr'ebri** (L. *acervulus*, a little heap ; *cērēbrum*, the brain).—A mass of gritty matter contained in the pineal gland.

**Acetā'bulum** (L. a vessel for holding vinegar).—The cavity in the innominate bone into which the femur articulates. Also applied to the suckers with which the cephalic processes of some Cephalopoda are provided.

**Achē'tidæ** (Gr. *achetēs*, a grasshopper).—The crickets.

**Achlā'mydate** (Gr. *a*, not ; *chlamys*, *chlamydos*, a cloak, mantle).—A term applied to those Branchiogasteropods which are destitute of a mantle.

**Acī'culum** (L. diminutive of *ācus*, a needle).—A sharp pointed process carried by the parapodia of the polychætic Annelida.

**Acinē'tæ** (Gr. *akinētos*, immoveable).—A group of the Infusoria, the members of which in the adult stage are non-locomotive.

**Acinē'tiform**.—A term applied to the embryo Infusorians, which resemble the *Acinetæ*.

**A'cini** (L. *ācīnus*, a grape).—The small granulations composing the substance of some glands.

**Acotylē'donous** (Gr. *a*, not ; *kotylēdōn*, a cup-shaped hollow).—Applied to cryptogamic plants whose spores have no cotyledons or seed-leaves.

**Acri'didæ** (Gr. *akris*, *akridos*, a grasshopper).—The grasshopper tribe of insects.

**A'crodont** (Gr. *akron*, the summit ; *ōdous*, *ōdontos*, a tooth).—Having the teeth attached by their bases to the summit of the parapet of the jaw, as in some of the Lacertilia.

**A'crogen** (Gr. *akron*, the summit; *gennao*, I produce).—A plant, the growth of which takes place at its summit.

**Acrō'mion** (Gr. *akron*, the summit; *ōmos*, a shoulder).—The process of the scapula which forms the summit of the shoulder.

**Actinozo'a** (Gr. *aktis*, a ray; *zōon*, an animal).—A division of the Cœlenterata.

**Adambulā'cral oss'icles** (L. *ad*, to; *ambulācrum*, a walk shaded with trees; *ossicle*, a little bone).—In the star-fishes, the small ossicles against which the ambulacral ossicles abut, and which lie at the sides of the groove which the ambulacral ossicles bound superiorly.

**Adduc'tion** (L. *ad*, to; *duco*, I lead).—The bringing of a limb to the middle line; the reverse process to abduction.

**Adduc'tor**.—A muscle, the contraction of which brings a limb to another or towards the middle line. In the Lamellibranchiata, the muscles which close the valves of the shell are termed *adductors*.

**Ā'denoid** (Gr. *adēn*, a gland; *eidos*, form).—Glandular; applied to a special variety of connective tissue found in glands.

**Ā'dipose** (L. *ādeps*, fat).—Fatty.

**Ād'nate** (L. *ad*, to; *natus*, born).—A term applied to the stipules of plants which adhere to the petiole.

**Ādrē'nal** (L. *ad*, to; *rēnēs*, the kidneys).—A name given to two glandular bodies connected with the kidneys.

**Adventi'tia cāpillā'ris** (L. *adventicius*, foreign, strange; *cāpillus*, a hair).—A continuous covering which some capillaries possess, and which is derived from the surrounding connective tissue.

**Āsthe'sodie** (Gr. *aisthesis*, sense, perception).—Conveying sensory impulses; sensitive.

**Ātiō'logy** (Gr. *aitiologia*, the giving an account).—The branch of Biology which treats of the origin and development of organic beings.

**Aetomor'phæ** (Gr. *aetos*, an eagle; *morphe*, form).—The birds of prey.

**Afferent** (L. *ad*, to; *fēro*, I carry).—Carrying to, as an *afferent* nerve which conveys impulses to a nerve centre.

**Agā'mic** (Gr. *a*, not; *gamos*, marriage).—Applied to ova which germinate without being impregnated.

**Agamogē'nēsis** (Gr. *a*, not; *gamos*, marriage; *gennesis*, a beginning).—Non-sexual reproduction.

**Aglos'sa** (Gr. *α*, not; *glōssa*, a tongue).—A group of the *Amphibia* in which a tongue is not developed.

**Aglyphodōntia** (Gr. *α*, not; *glupho*, I carve; *ōdous*, *ōdontos*, a tooth).—A division of the Ophidia which have none of the maxillary teeth grooved.

**Ag'minated** (L. *agmen*, a troupe).—Grouped together; as the agminated glands of Peyer in the small intestine.

**Ailuroi'dea** (Gr. *ailouros*, a cat).—A group of the Carnivora which includes the cats, civets, and hyænas.

**Ala vespertilio'nis** (L. the wing of the bat).—The name applied to that part of the womb between the Fallopian tube and the ovary, from its resemblance.

**Alæ** (L. *ala*, a wing).—The lateral petals of such a flower as that of the pea or bean. Also applied to winglike processes of bone or muscle, as the alæ of the diaphragm and of the sphenoid bone.

**Alary** (L. *āla*, a wing).—Applied to certain muscles attached in pairs to the walls of the pericardial chamber inserted into the hypodermis in some *Insecta*.

**Albu'men** (L. *albus*, white).—A proteid animal substance of which the white of an egg may be taken as an example. Vegetable albumen is a similar substance found in many seeds between the embryo and the integuments.

**Albur'num**.—The young wood of an exogenous stem.

**Alectromor'phæ** (Gr. *alector*, a cock; *morphe*, form).—The fowls.

**Al'gæ** (L. *algor*, coldness, or *allige*, to entangle).—The sea-weeds and similar plants.

**Alimen'tary canal** (L. *alimentum*, nourishment).—The digestive cavity from the mouth to the anus.

**Alimenta'tion** (L. *alimentum*, nourishment).—The taking of nourishment into the system.

**Alinā'sal pro'cess** (L. *āla*, a wing; *nāsus*, the nose).—A process surrounding each nasal aperture in the chondrocranium of the frog.

**Alisphē'nid** (L. *āla*, a wing; *ōs sphēnoidēs*, the sphenoid bone).—A bone of the skull which is represented in human anatomy by the great wing of the sphenoid bone.

**Allan'tois** (Gr. *allas*, a sausage).—An outgrowth from the hinder part of the embryonic alimentary canal in mammals, birds, and reptiles, which performs the part of a respiratory organ during part of foetal life.

**Alligato'ridæ**.—The alligator group of reptiles.

**Alve'olus** (L. *alvōlus*, a little hollow).—A small depression; the socket of a tooth. Also the name given to each of the five pieces of which the oral skeleton is composed in the *Echinidea*. The ultimate saccules of a racemosous gland.

**Ambula'cra** (L. *ambulācrum*, a garden walk).—The spaces in the tests of sea-urchins and star-fishes, containing the apertures through which the “tube feet” are protruded.

**Ambula'cral**.—Relating to the *ambulacra*, as the ambulacral vessels.

**Ambula'cral ossicles** (L. *ambulācrum*, a garden walk; *ossiculum*, a little bone).—In the star-fishes, the ossicles which bound the sides and roof of the ambulacral grooves.

**Am'bulatory** (L. *ambulāre*, to walk).—Applied to the appendages of Crustacea which are used in walking.

**Ametā'bola** (Gr. *a*, not; *metabolē*, change).—The insects which do not undergo metamorphosis.

**Ami'adæ**.—A sub-order of Ganoid fishes.

**Am'monite** (so called from their resembling the horns on the statues of Jupiter-Ammon).—A group of extinct Cephalopods.

**Am'nion** (Gr. *amnos*, a lamb).—One of the appendages of the foetus in mammals and birds.

**Amœ'ba** (Gr. *ameibo*, I change).—A genus of the Rhizopoda, the members of which constantly change their shape.

**Amœ'boid** (Gr. *ameibo*, I change).—Like an amœba.

**Amphiarthrō'sis** (Gr. *amphi*, both; *arthron*, an articulation).—An articulation of bones partaking of the character both of a diarthrosis or moveable joint, and a synarthrosis or immovable joint.

**Amphī'bia** (Gr. *amphi*, both; *bios*, life).—A division of the Vertebrata adapted for breathing in water when young, and in air when mature.

**Amphicœ'lus** (Gr. *amphi*, both; *koilos*, hollow).—Applied to vertebrae which are concave at both ends.

**Amphidiarthro'sis** (Gr. *amphi*, both; *diarthrosis*, an articulation).—A term applied to such an articulation as that of the lower jaw with the temporal bone, because it partakes of the nature of a hinge-joint, and, at the same time, admits of a movement from side to side.

**Amphidis'cus** (Gr. *amphi*, both; *diskos*, a disc or quoit).—A siliceous body resembling two cogged wheels connected by an axle, found in some sponges.

**Amphimor'phæ** (Gr. *amphi*, both; *morphe*, form).—A group of birds which comprises the flamingoes.

**Amphiox'us** (Gr. *amphi*, both ; *oxus*, sharp, pointed).—The lowest vertebrate animal. Its body is pointed at both ends.

**Amphi'poda** (Gr. *amphi*, both ; *pous*, *pōdos*, a foot).—A division of the Crustacea.

**Amphirhi'na** (Gr. *amphi*, both ; *rhis*, *rhinos*, the nose).—Applied by Haeckel to the Elasmobranch fishes, because the nasal sac is double.

**Amphisbæ'noida** (Gr. *amphis*, both ways ; *baino*, I walk).—A group of the *Lacertilia*.

**Ampul'la** (L. *ampullor*, I swell out).—The dilated extremities of the semicircular canals of the ear.

**Amygda'læ** (Gr. *amugdalē*, an almond).—Two rounded lobes in the cerebellum.

**Amyla'ceous** (Gr. *amylon*, starch).—Starch-like. Of or belonging to starch.

**Am'yloid** (Gr. *amylon*, starch ; *eidos*, form).—Of the chemical nature of starch.

**Amylolýtic** (Gr. *amylon*, starch ; *luo*, I loose).—Having the power of converting starch into dextrin and grape-sugar.

**Anacan'thini** (Gr. *anakanthos*, without thorns).—A group of Teleostean fishes.

**Anæ'mia** (Gr. *an*, not ; *aima*, blood).—A pathological term signifying a deficiency of blood ; the condition of the body after a great loss of blood.

**Anæsthë'sia** (Gr. *anaisthētos*, senseless).—Loss of sensation.

**Anapō'phyisis** (Gr. *ana*, upon ; *opophuo*, I grow).—The lower of two accessory processes which sometimes appear on the neural arches of the lumbar vertebrae.

**Anaptychi** (Gr. *anaptychē*, unfolding).—Heart-shaped plates of shelly substance found in some Goniatites and Ammonites.

**Anarthrō'poda** (Gr. *a*, not ; *arthros*, a joint ; *pous*, *pōdos*, a foot).—A division of the Annulosa, the members of which are destitute of jointed limbs.

**Anastomose** (Gr. *ana*, through ; *stōma*, a mouth).—To open into each other (as do veins and arteries), so as to form a network.

**Ană'tomy** (Gr. *ana*, up ; *temno*, I cut).—The science which treats of the structure of organisms as determined by their dissection.

**Anchylō'sis** (Gr. *ankulē*, a thong or clasp).—The union of two or more separate bones so as to form only one bone.

**Anco'neus** (Gr. *ankōn*, the elbow).—A name given to muscles placed mainly below the elbow and fore-arm.

**An'drophore** (Gr. *anēr*, *andros*, a man; *phoreo*, I bear).—The branches of the gonoblastidium of some Siphonophora which bear the male gonophores.

**An'eurism** (Gr. *aneuruno*, I enlarge).—A tumour filled with blood arising from the rupture, wounding, or dilatation of an artery.

**Anfractuō'sities** (L. *anfractus*, a winding).—The furrows or sulci which divide the convolutions of the brain.

**Angeiō'logy** (Gr. *angeion*, a vessel; *logos*, discourse).—The department of Anatomy which comprises a description of the blood-vessels and absorbents.

**An'gular** (L. *angulus*, a corner).—A bone of the mandible in some Vertebrata.

**Ang'ulo-sple'nial** (L. *angulus*, a corner; *splēnium*, a splint).—One of the bones of the mandible in some vertebrate skulls.

**An'kylose** (see *Anchylose*).

**Annē'lida** (L. *annulus*, a ring).—A division of the Anarthropoda which embraces the earth-worm, leech, &c.

**Annulā'ris** (L. *annulus*, a ring).—The fourth digit of the manus, which in man is the “ring-finger.”

**Annuloi'da** (L. *annulus*, a ring).—A division of the Invertebrata, formerly including the Echinodermata and the Scolecida, but now used by Huxley for a series which embraces the Annelida and Trichoscolices.

**Annulo'sa** (L. *annulus*, a ring).—A division of the Invertebrata which includes the Arthropoda and Anarthropoda.

**An'nulus** (L. a ring).—Applied to a thin ring of chitine which encircles the mantle of the Tetrabranchiata, and into which the shell muscles are inserted. Also to the cellular ring which lines the sporangium of a fern.

**An'nulus ovā'lis** (L. oval ring).—The border which bounds the fossa ovalis of the septum between the auricles of the heart.

**Anodon'ta** (Gr. *an*, not; *ōdous*, *ōdontos*, a tooth).—The freshwater mussels, which are bivalve molluscs, having valves which are destitute of teeth.

**Anomu'ra** (Gr. *anomos*, irregular; *oura*, a tail).—A tribe of Decapod Crustacea, of which the hermit crab is a type.

**Anoplothe'rīdæ** (Gr. *anoplos*, unarmed; *thēr*, a beast).—A family of extinct mammals belonging to the eocene and miocene epochs.

**Anor'thoscope** (Gr. *anortho*, I set straight again; *skopeo*, I behold).—An instrument so constructed, that distorted images drawn on cards for the purpose, on being placed in it, and whirled rapidly round, are seen restored to their just proportions.

**Antambula'cral face** (Gr. *anti*, opposite).—In the star-fish, that face on which there are no ambulacra.

**Ante-bra'chium** (L. *ante*, before; *brachium*, the arm from the elbow to the wrist).—The fore-arm.

**Antefur'ca** (L. *ante*, before; *furca*, a fork).—The anterior forked projections from the sternal wall in each somite of a cockroach.

**Anten'na** (L. the yard-arm of a ship).—A jointed appendage of the head in Insecta, Crustacea, and Myriapoda.

**Anten'nule** (L. dim. of *antenna*).—The shorter pair of antennæ in the Crustacea.

**Ante'rior** (L. *ante*, before).—In Comparative Anatomy, towards the head. In Human Anatomy often employed in the sense of ventral.

**An'ther** (Gr. *anthos*, a flower).—In plants, the sac of the stamen which contains the pollen.

**Anther'i'dium** (Gr. *anthos*, a flower; *eidos*, form).—The reproductive organs of ferns and other cryptogamic plants which contain the male reproductive elements.

**Anthe'rozoids** (Gr. *anthos*, a flower; *zōon*, an animal).—The vibratile filaments in cryptogamic plants which are the homologues of the spermatozoa of animals.

**Anthro'pidae** (Gr. *anthrōpos*, a man).—The genus man.

**An'thropomor'pha** (Gr. *anthrōpos*, a man; *morphe*, form).—The man-like apes.

**Antihe'lix** (Gr. *anti*, opposite).—The curved ridge of the external ear within the helix.

**Antitra'gus** (Gr. *anti*, opposite).—A small elevation of the external ear opposite the tragus.

**Antitrochan'ter** (Gr. *anti*, opposite).—The articular surface on the ilium of birds on which the great trochanter of the femur plays.

**An'trum pylori** (L. cave of the pylorus).—A depression near the pyloric end of the human stomach.

**Anu'ra** (Gr. *a*, not; *oura*, a tail).—A group of the Amphibia, comprising the frogs and toads, the members of which are destitute of tails.

**A'nus** (L. a vent).—The external opening of the large intestine.

**Aor'ta** (perhaps from Gr. *aeiro*, I take up, suspend, or carry).—The main artery which springs from and suspends the heart.

**Apha'sia** (Gr. *a*, not ; *phasis*, speech).—Loss of the mental faculty of speech as distinguished from paralysis of the organs concerned in speech.

**Apnœ'a** (Gr. *a*, not ; *pneo*, I breathe).—A condition in which, owing to an abnormally large supply of oxygen to the blood, the respiratory movements are temporarily suspended. Sometimes used pathologically as the exact opposite of this, viz., as almost synonymous with *asphyxia*.

**Apo'da** (Gr. *a*, not ; *pous*, *pōdos*, a foot).—A group of the Cirripedia, the sole representative of which has neither thoracic nor abdominal limbs.

**A'podemes** (Gr. *apodēmeo*, to go away, travel).—Processes which in the tenth, eleventh, twelfth, and thirteenth somites of the cephalothorax of the crayfish, project inwards and unite with one another in the thorax.

**Apo'lar** (Gr. *a*, not ; *polos*, a pole).—A term applied to those nerve corpuscles which have no radiating processes.

**Aponeuro'sis** (Gr. *apo*, from ; *neuron*, a sinew).—White fibrous tissue spread out in a sheet, which envelopes and binds down the muscles of different regions.

**Apō'physis** (Gr. *apophuo*, I grow from).—A process or protuberance of bone.

**Appen'dices epiplo'icæ** (L. *appendix*, an appendage ; Gr. *epiploon*, the omentum).—Projections from the serous coat of the large intestine containing fat.

**Append'icular** (L. *appendix*, an appendage).—Applied to that part of the skeleton (the limbs) which is attached to the axial skeleton.

**Appen'dix vermifor'mis** (L. worm-like appendage).—A narrow tapering process of the cæcum.

**Appen'dix vesi'cæ** (L. appendage of the bladder).—An abnormal protrusion of a part of the mucous coat of the bladder through the muscular coat.

**Aproc'ta** (Gr. *a*, not ; *proktos*, the anus or seat).—A group of the Turbellaria in which there is no anal aperture.

**Apte'ria** (Gr. *a*, not ; *pterion*, a feather).—The spaces between the contour feathers in a bird.

**Aptery'gidæ** (Gr. *a*, not ; *pterion*, a wing).—A subdivision of the Ratitæ in birds, which comprises the extinct wingless bird of New Zealand.

**Ap'tychi** (Gr. *apto*, I fasten).—Plates of shelly substance found sometimes in the terminal chamber of Ammonite shells.

**Aquæduc'tus coch'leæ** (L. aqueduct of the cochlea).—A small canal leading from the cochlea of the human ear to the jugular fossa of the petrous bone.

**Aquæduc'tus Fallō'pii** (L. aqueduct of Fallopius).—The canal in the temporal bone which transmits the facial nerve.

**Aquæduc'tus Syl'vii** (L. aqueduct of Sylvius).—A narrow canal connecting the third ventricle of the brain with its fourth ventricle, so named from its discoverer.

**Aquæduc'tus vestī'buli** (L. aqueduct of the vestibule).—A small canal leading from the vestibule of the human ear to the posterior surface of the petrous bone.

**A'queous** (L. *aqua*, water).—Watery. Applied to the humour filling the anterior chamber of the eye.

**Aqui'ferous canals** (L. *aqua*, water; *fero*, I carry).—Water-bearing. Small canals which in some molluscs traverse the substance of the foot and open externally.

**Arach'nida** (Gr. *arachnē*, a spider).—A division of the Arthropoda which includes the spiders, scorpions, and mites.

**Arachnī'dial mammillæ** (Gr. *arachnē*, a spider; L. *mamilla*, a little teat).—The teat-like terminations of the ducts of the glands which secrete the web in the spiders.

**Arachnī'dial papillæ** (Gr. *arachnē*, a spider; L. *papilla*, a nipple).—The terminations of the arachnidial mammillæ.

**Arachnī'dium** (Gr. *arachnē*, a spider).—The glandular organ in which the web of spiders is secreted.

**Arach'noid** (Gr. *arachnē*, a spider's web).—The serous sac which forms the middle of the three enveloping membranes of the brain and spinal cord.

**Aranei'na** (L. *arānēa*, a spider).—The spiders.

**Ar'bor vi'tæ** (L. tree of life).—The name applied to the tree-like disposition of the grey and white nerve tissues in the cerebellum, as seen in a vertical section.

**Archæoptery'gidæ** (Gr. *archaios*, ancient; *pteryx*, a wing).—A class of extinct Oolitic birds, of which at present only one representative (*Archæopteryx*) is known.

**Archæostō'matous** (Gr. *archaios*, ancient, primitive; *stōma*, *stōmatos*, the mouth, entrance).—A term applied to a *gastrula* when the blastopore does not entirely close up, but remains as the aperture by which the endoderm of the organism communicates with the exterior.

**Archego'niu**m (Gr. *archos*, chief; *gynē*, a female).—The organ which contains the female reproductive elements in cryptogams.

**Archent'ron** (Gr. *archos*, chief; *enteron*, the intestine).—The primitive alimentary sac in the embryo of some of the Invertebrata.

**Archiblas'tula** (Gr. *archos*, chief; *blastano*, to germinate).—A term applied by Haeckel to the vesicular morula formed by the process of yolk division in the ovum of the Physemaria.

**Arctis'ca**.—A group of the Arachnida.

**Aretoi'dea** (Gr. *arktos*, a bear).—A group of the Carnivora which includes the bears, weasles, &c.

**Arctopithē'cini** (Gr. *arktos*, a bear; *pithēks*, an ape).—The marmosets, small thickly-furred quadrupedal apes.

**Area germinā'tiva** (L. germinal area).—The area of the ovum in which the embryo appears.

**Area opā'ca** (L. opaque area).—The marginal opaque ring which surrounds the pellucid area of the ovum, and from which the fetal appendages are developed.

**Area pell'cida** (L. pellucid or clear area).—The central portion of the germinal area from which alone the embryo is developed.

**Area vasculo'sa** (L. vascular area).—The area of the blastoderm in which the fetal blood-vessels are developed.

**Are'ōlar** (L. *ārēōla*, a little space).—Applied to a form of connective tissue which exhibits small spaces between its fibrous felt-work.

**Arreno'tokous** (Gr. *arren*, *arrēnos*, a male; *tokos*, a bringing forth).—A term applied to those small females amongst insects which lay eggs, from which only male offspring are developed.

**Ar'tery** (Gr. *aer*, air; *tereo*, I keep; or it has been suggested probably Gr. *arteria* from *arter*, that by which anything is suspended).—A vessel which conveys blood from the heart, and the largest of which (the aorta) helps to suspend the heart. Arteries were thought by the ancients to contain air.

**Arthro'dia** (Gr. *arthron*, a joint).—A joint with nearly flat surfaces, as in the articulations of the carpus, tarsus, and vertebrae, admitting motion on all sides.

**Arthrogas'tra** (Gr. *arthron*, a joint; *gastēr*, the stomach).—The scorpions and pseudo-scorpions, a division of the Arachnida.

**Arthrōlogy** (Gr. *arthron*, a joint ; *lōgos*, a discourse).—The branch of Anatomy which treats of the joints.

**Arthrōpoda** (Gr. *arthron*, a joint ; *pous*, *pōdos*, a foot).—A division of the Invertebrata which comprises all those animals which have jointed appendages.

**Arthrozoīc** (Gr. *arthron*, a joint ; *zōon*, an animal).—A series of the Invertebrata which embraces the Arthropoda, Nematoscolices, and Chætognatha.

**Articulārē** (L. relating to a joint).—A bone of the lower jaw, which, in most of the Vertebrata but mammals, results from one of the ossifications of Meckel's cartilage.

**Articula'ta** (L. *articulus*, a joint).—A group of Brachiopods in which the two valves of the shell are united by a hinge.

**Artīculi** (L. joints).—The joints of the cirri of the Crinoidea.

**Artiodac'tyla** (Gr. *artios*, even ; *daktylos*, a finger or toe).—A group of the Ungulata, the members of which have an even number of digits.

**Aryepiglot'tic ligaments**.—Folds of mucous membrane extending from the arytenoid cartilages to the epiglottis.

**Aryte'noid** (Gr. *arytaina*, a pitcher or ladle ; *eidos*, shape).—The name of the two pyramidal cartilages of the larynx which are situated on the posterior border of the cricoid cartilage.

**Arytenoi'deus**.—The muscle which passes from one arytenoid cartilage to the other.

**Ascalābota** (Gr. *askalabos*, a newt).—A group of the *Lacertilia*.

**As'ei** (Gr. *askos*, a leathern bottle).—The name given to the *sporangia* of fungi, in which spores are produced by division of the protoplasm.

**Ascidia'rium** (Gr. *askos*, a bag or leathern bottle ; *eidos*, form).—The structure which is formed by the *ascidiozōoids* in the development of an *Ascidian*.

**Ascidioi'da** (Gr. *askos*, a bag ; *eidos*, form).—A group of Mollusca, so called because they resemble in shape a two-necked bottle.

**Asci'tēs** (Gr. *askos*, a bottle).—Dropsy of the abdomen ; so called from the bottle-like appearance to which it gives rise.

**Asco'nēs** (Gr. *askōn*, a skin).—A family of the *Calcispongæ*.

**As'cospores** (Gr. *askos*, a leathern bottle ; *spōra*, a seed).—Spores produced by division of protoplasmic masses, as in *Torula*, *Mucor*, &c.

**Asex'ual**.—Not sexual ; applied to modes of reproduction in which sex takes no share, as gemmation, fission, &c.

**Asphyxia** (Gr. *a*, not; *sphuxis*, the pulse).—The state produced by deprivation of air or deficiency of oxygen in the air breathed.

**Assimilate** (L. *ad*, to; *similis*, like).—To convert food into nutriment; to make like.

**Asteridea** (Gr. *astēr*, a star).—A group of the *Echinodermata* which comprises the star-fishes.

**Asteriscus** (Gr. *asteriskos*, a little star).—The posterior and smaller otolith in the ear of *Teleostean* fishes.

**Astigmatism** (Gr. *a*, not; *stigma*, a mark).—A term for dimness of vision supposed to arise from malformation of the crystalline lens.

**Astragalus** (Gr. *astragalos*, a die shaped like the ankle-bone).—One of the bones of the tarsus, which in man forms the ankle-bone.

**Atlas** (Gr. the name of the god who was supposed to hold up the earth).—The first cervical vertebra which supports the skull.

**Atoll** (L. *attollo*, I raise up).—A coral island consisting of a ring of coral having a lagoon in the centre.

**Atrial canals** (L. *atrium*, a hall).—A pair of canals in the *Tunicata*, which open near the rectum.

**Atricha** (Gr. *a*, not; *thrix, trichos*, the hair).—A subdivision of the *Nematorhyncha* which have no cilia.

**Atrium** (L. the open court of a Roman house).—The auricular portion of the heart. Also the cloaca of the *Ascidioidea*.

**Arophy** (Gr. *a*, not; *trēpho*, I nourish).—The wasting away of tissue for want of nourishment.

**Attollens** (L. *attollo*, to raise up).—Raising up; elevating; applied to certain muscles which lift the parts to which they are attached.

**Attrahens** (L. *attraho*, to draw up).—Drawing up. Applied to certain muscles which act in this way.

**Auricle** (L. *auricula*, the outer ear).—The external ear. The receiving chambers of the heart are named auricles, because of the fancied resemblance of the auricular appendages to little ears.

**Auriculae** (L. dim. of *auris*, the ear).—Perforated processes which arch over the ambulacra in the *Echinidea*.

**Auriculō-orbiulāris**.—A round muscle attached to the pinna of the ear in some Vertebrates.

**Autophagi** (Gr. *autos*, self; *phāgo*, I eat).—A term applied to birds which are able to run about and obtain their own food as soon as hatched.

**A'ves** (L. birds).—One of the divisions of the Vertebrata.

**Avicula'rium** (L. *avicula*, a little bird).—An appendage of the Polyzoa which somewhat resembles a bird's head.

**Ax'ial**.—A term applied to that part of the skeleton which forms the main axis of the body.

**Axilla** (L. the arm-pit).—The angle made by the leaf of a plant with the stem. Used also in human anatomy in its literal signification, to denote the angle between the arm and the trunk.

**Ax'is** (L. a pivot).—The second cervical vertebra, which supplies the pivot on which the head turns. Also applied to the central portion of the body round which the other parts are arranged.

**A'zygos u'vula** (Gr *a*, not; *zugos*, a yoke).—A muscle of the uvula. The term *azygos* is used as an adjective, to denote a muscle, vein, or other part of the body which is without a fellow.

## B.

**Bacill'ary** (L. *bacillum*, a little staff).—Applied to the layer of the retina which contains the rods and cones.

**Bacill'us** (L. *bacillum*, a little staff).—A variety of Bacterium.

**Bacte'rium** (Gr. *bakterion*, a staff).—The rod-like jointed filament which is found in putrefying organic infusions.

**Baguette** (Fr. *baguette*, a small stick, a ramrod).—The term applied to the curved rods contained in the capsules into which the nucleolus of some Infusoria divides during conjugation.

**Balænoi'dea** (L. *balæna*, a whale).—A division of the Cetacea, comprising the right whale and the fin-fishes.

**Balan'ideæ** (Gr. *balanos*, an acorn).—The sessile Cirripedia.

**Baleen** (Fr. *baleine*, whalebone).—The whalebone plates which in the Balænoidea take the place of teeth.

**Barb** (L. *barba*, a beard).—The term applied to the lateral processes of the rachis of the contour feathers of a bird.

**Bar'bule** (L. dim. of *barba*, a beard).—Pointed processes of the barbs of the contour feathers of a bird.

**Basalia** (Gr. *basis*, a pedestal).—The basal cartilages of the fins of the *Elasmobranchii*.

**Basic'erite** (Gr. *basis*, a pedestal; *keraia*, a horn).—The second joint of the antennæ of Crustaceans

**Basihy'al** (L. *basis*, the base ; *hyoidēs*, hyoid bone).—An ossification of each corner of the hyoidean arch occurring in some fishes ; represented in Human Anatomy by the body of the hyoid bone.

**Basioccip'ital** (L. *basis*, a pedestal, base ; *occiput*, the back of the head).—A bone of the skull which in Human Anatomy is represented by the basilar process of the occipital bone.

**Basiophthal'mite** (Gr. *basis*, a pedestal ; *ophthalmos*, the eye).—The proximal joint of the eye-stalks in the Crustacea.

**Basi'podite** (Gr. *basis*, a pedestal ; *pous*, *pōdos*, a foot).—That joint of the limb of an arthropod animal which is articulated to the body.

**Basiptery'goid** (Gr. *basis*, a pedestal ; *pterygion*, a little wing).—One of the bones of the vertebrate skull ; represented in Human Anatomy by the pterygoid plates.

**Basi-sphe'noid** (Gr. *basis*, a pedestal ; *sphēn*, a wedge).—One of the bones of the vertebrate skull ; represented in Human Anatomy by the posterior part of the body of the sphenoid bone.

**Basi-tem'poral** (Gr. *basis*, a pedestal ; L. *tempora*, the temples).—One of the bones of the vertebrate skull.

**Ba'sis cra'nii**.—The base or floor of the skull.

**Bast or Bass**.—The innermost layer of the bark of an exogenous tree.

**Batra'chia** (Gr. *batrachos*, a frog).—A division of the Amphibia, sometimes termed Anura, which includes the frogs.

**Bēlemnites** (Gr. *belemnos*, a dart).—An extinct group of Cephalopoda, the fossil remains of which were formerly termed thunderbolts.

**Belodon'tidæ** (Gr. *belos*, an arrow ; *odous*, *odontos*, a tooth).—A group of the Crocodilia, now extinct.

**Bi'ceps bra'chii** (L. *biceps*, having two heads ; *brachium*, the fore-arm).—The double-headed muscle which flexes the fore-arm.

**Bi'ceps fe'moris** (L. *biceps*, having two heads ; *femur*, the thigh).—One of the muscles of the thigh.

**Bicus'pid** (L. *bis*, twice ; *cuspis*, a pointed extremity).—Having two points, as the bicuspid teeth. Applied also to the valve between the left auricle and ventricle.

**Bi'furcate** (L. *bis*, twice ; *furca*, a fork).—To divide into two branches, so as to give rise to a kind of fork.

**Bilat'eral sym'metry** (L. *bis*, in two ways ; *latera*, sides ; Gr. *symmetria*, proportion).—The similarity of parts on the right and left sides of a body.

**Bile** (L. *bilis*).—The alkaline secretion of the liver.

**Biliful'vin** (bile; *fulvus*, dark or reddish yellow).—A yellow colouring matter of the bile.

**Biliru'bín** (bile; *rubor*, redness).—A red colouring matter of the bile.

**Biliver'din** (Fr. *bile*, the bile; *vert*, green).—A green colouring matter found in bile.

**Biología** (Gr. *bios*, life; *lógos*, a discourse).—The science which treats of the nature and properties of all living, as distinct from not living, matter.

**Bipolar** (L. *bis*, twice; *polus*, a pole).—Having two poles; applied to those ganglionic nerve corpuscles which have two radiating processes.

**Bisex'ual** (L. *bis*, in two ways; *sexus*, sex).—Not having the sexes united in the same individual.

**Bi'valve** (L. *bis*, twice; *valvæ*, folding doors).—Having a shell with two valves.

**Bi'vium** (L. a place with two roads).—The two posterior ambulacra of the Echinidea.

**Blastē'ma** (Gr. *blastēma*, a bud, shoot).—The indifferent tissue of the embryo.

**Blas'tide** (Gr. *blastos*, a germ).—A small, clear space in the segments of the ovum, which is the precursor of the nucleus.

**Blas'tocœle** (Gr. *blastos*, a germ; *koilos*, hollow).—The central cleavage cavity of the morula produced by the segmentation of the holoblastic ovum.

**Blas'toderm** (Gr. *blastos*, a germ; *derma*, skin).—The germinal membrane from which the embryo is developed.

**Blastoi'dea** (Gr. *blastos*, a bud; *eidos*, form).—A group of extinct Crinoidea.

**Blas'tomere** (Gr. *blastos*, a germ; *mēros*, a part, portion).—The segments produced by the division of the ovum.

**Blas'tosphere** (Gr. *blastos*, a germ; *sphaira*, a ball, sphere).—The hollow sphere formed by the arrangement of the blastomeres on the periphery of the ovum.

**Blas'tostyle** (Gr. *blastos*, a bud; *stylos*, a style, pen).—The special stalk upon which the gonophores in the Hydrophora are frequently developed.

**Botany** (Gr. *botanē*, an herb).—The branch of Biology which treats of vegetable life.

**Bra'chial** (L. *brachium*, the fore-arm).—Relating to the arm.

**Brachialis anticus** (L. *brachialis*, relating to the arm ; *anticus*, forward, in front).—A muscle arising from the humerus and inserted in the ulna.

**Brachiferous disk** (L. *brachium*, the arm ; *fero*, I bear, carry).—The floor of the sub-umbrellar cavity in the Rhizostomidæ, from which the “arms” are given off.

**Brachiopoda** (Gr. *brachion*, an arm ; *pous*, a foot).—A division of the Mollusca having long ciliated arms and bivalve shells.

**Bra'chium** (L. the fore-arm).—The division of the anterior extremity which lies between the shoulder and the elbow.

**Bră'chycéph'ali** (Gr. *brachus*, short ; *kephalē*, the head).—Those members of the human race which have short skulls, that is, with a cephalic index of 80 or above.

**Brachyura** (Gr. *brachus*, short ; *oura*, the tail).—A subdivision of the Crustacea in which the abdomen is comparatively small.

**Bract** (L. *bractea*, a thin plate).—The modified leaf commonly found at the base of a flower-stalk in plants

**Bran'chia** (Gr. gills).—The respiratory organs of fishes and some amphibians, adapted for breathing the air dissolved in water.

**Bran'chial** (Gr. *branchia*, a gill).—Relating to the gills. Applied to the heart of an invertebrate animal, it signifies a heart which receives its blood from the vessels of the gills, and not from the systemic vessels.

**Bran'chio-car'diac canals** (Gr. *branchia*, a gill ; *kardia*, the heart).—In the Crustacea, canals which bring the blood from the gills to the heart.

**Branchiogasteropoda** (Gr. *branchia*, a gill ; *gaster*, the stomach ; *pous*, *pōdos*, a foot).—The Gasteropoda which breathe by gills.

**Branchiopoda** (Gr. *branchia*, a gill ; *pous*, *pōdos*, a foot).—A group of Crustaceans having gills supported by the feet.

**Branchiostegal membrane** (Gr. *branchia*, a gill ; *stego*, I cover).—A membrane which forms an inner covering to the gills in Teleostean fishes.

**Branchiostegite** (Gr. *branchia*, a gill ; *stego*, I cover).—A covering, or protection for the gills.

**Bron'chial** (Gr. *bronchos*, the wind-pipe).—Relating to the air-passages and lungs.

**Bron'chus** (Gr. *bronchos*, the wind-pipe).—The name given to each of the two primary branches of the trachea.

**Bry'ozoa** (Gr. *bruon*, moss; *zōon*, an animal).—Another name for the Polyzoa, which group of Invertebrata includes the sea-mats, &c.

**Buc'cal** (L. *bucca*, the mouth).—Relating to the mouth, as the *buccal glands*.

**Buc'cinator** (L. *bucca*, the mouth, or *buccino*, to sound a trumpet).—A muscle which forms a large part of the wall of the mouth, and is chiefly employed in blowing.

**Bulb** (L. *bulbus*, an onion).—An underground bud covered with scales.

**Bul'bi vesti'buli** (L. *vestibularbulbs*).—Two leech-shaped masses containing veins, situate in the vestibule of the human female reproductive organs.

**Bul'bus arteriō'sus** (L. *arterial bulb*).—The portion of the heart which in some animals, and in all vertebrate embryos, intervenes between the ventricle and the arteries, and which is usually rhythmically contractile.

**Bul'la** (L. *bulla*, a bubble).—The convex osseous wall which bounds the tympanum in some Vertebrata.

**Burr.**—A circular ridge which appears on the horn of deer, &c.

**Bur'sa** (Gr. a leather bottle).—A pouch; a membranous sac containing fluid, interposed between parts which are subject to movement on one another to reduce friction.

**Bur'sa Entia'na.**—The duodenal segment of the intestine in Elasmobranch fishes.

**Bursā'lis** (L. *bursa*, a pouch).—A muscle, which in lizards is attached to the inner posterior wall of the orbit, and in birds to the sclerotic coat of the eye.

**Bys'sus** (Gr. *bussos*, flax).—A cluster of silky threads by which the sea-muscle and other Lamellibranchiata attach themselves to rocks.

## C.

**Cada'veric** (L. *cadaver*, a corpse).—Corpse-like. Cadaveric rigidity is the stiffening of the muscles, or *rigor mortis* which takes place after death.

**Cœ'cum** (L. *cæcūs*, blind).—The blind intestine, a diverticulum from the intestine proper in the Vertebrata.

**Cā'lamus** (Gr. *kalamos*, a reed).—The quill of a bird's feather.

**Cā'lamus scriptō'rius** (L. a writing-pen).—The angle formed by the divergence of the posterior pyramids of the medulla oblongata.

**Calca'neum** (L. *calx*, the heel).—The bone of the tarsus, which in man forms the heel.

**Cal'car** (L. a spur).—The prominence on the anterior edge of the pes of a frog. The "spur" of some birds. Also a spur-like process in the *Rotifera*.

**Cal'car a'vis** (L. a bird's spur).—The curved eminence in the lateral ventricles of the brain, usually called the *hippocampus minor*.

**Calca'reous** (L. *calx*, lime).—Composed of lime or salts of lime.

**Cal'carine sul'cus** (L. *calcar*, a spur; *sulcus*, a furrow).—The furrow of the cerebral hemispheres, which, by its projection into the lateral ventricles, gives rise to the *hippocampus minor*.

**Cal'ciform** (L. *calx*, a pebble).—Pebble-shaped.

**Calcispon'giæ** (L. *calx*, lime; *spongia*, a sponge).—The sponges with calcareous skeletons, a division of the *Porifera*.

**Callo'sal gyrus** (L. *callosus*, having a hard skin; *gyrus*, a circle made by running).—One of the cerebral convolutions.

**Callōsity** (L. *callosus*, having a hard skin).—A hardening of the integument.

**Callo'so-mar'ginal sul'cus**.—The sulcus or furrow which separates the marginal from the callosal cerebral convolution.

**Calorifa'cient** (L. *calor*, heat; *facio*, I make).—Heat-producing.

**Ca'lyx** (Gr. *kalyx*, a cup, chalice).—The outer whorl of floral leaves in a flowering plant. The expanded termination of the ureters in the kidney, which receive the urinary secretion from the urinary tubules. Also the "cup" of a *Crinoid*, or of *Vorticella*. (Plural, *calyces*.)

**Cam'bium**.—A tissue composed of mucilaginous cells placed between the bark and young wood, or round the vessels of exogenous plants.

**Came'lidae** (Gr. *kamelos*, a camel).—The subdivision of the ruminants which embraces the camels.

**Canal'i'culi** (L. little canals).—The canals in bone which contain the blood-vessels. A term for any small channel.

**Canā'lis auricula'ris** (L. the auricular canal).—The constriction between the auricular and ventricular parts of the foetal heart.

**Canā'lis centrā'lis** (L. central canal).—The central canal which runs through the spinal cord.

**Canā'lis centrā'lis modiōli** (L. central canal of the modiolus).—The largest of the canals in the modiolus of the ear.

**Canālis membranā'cea** (L. membranous canal).—The central canal of the cochlea of the ear.

**Canālis reu'niens** (L. the re-uniting canal).—The canal by which the sacculus of the internal ear communicates with the membranous canal of the cochlea.

**Canālis spirālis modiolī** (L. spiral canal of the modiolus).—A small canal winding round the modiolus of the ear.

**Can'cellous** (L. *cancelli*, trellis-work).—A term applied to the spongy form of bony tissue.

**Ca'nine** (L. *canis*, a dog).—A term applied to the teeth next to the incisors, commonly called "eye" teeth, and which are well developed in the dog.

**Can'thus** (Gr. *kanthos*, the corner of the eye).—The corner of the eye, formed by the junction of the eyelids.

**Cap'illary, or Capil'lar'y** (L. *capillus*, a hair).—As an adjective, fine, hair-like. As a substantive, one of the minute thin-walled vessels which unite the arteries and veins, and which are so called because of their hair-like size. Capillary lymphatics are those minute absorbents which form the network in which the lymphatics arise in the tissues.

**Capitulum** (L. a little head).—Applied to the rounded body at the extremity of the manubrium in the antheridium of Chara, and similar plants. The head of flowers in the Compositæ. Also a cavity formed by the valves of the shell in the *Cirripedia*, in which the hinder part of the body is contained. A rounded process of bone.

**Cap'sule atrabili'a'ris** (Fr. *atrabitiare*, from L. *ater*, black; *bilis*, bile).—A term applied by the old anatomists to the *supra-renal capsules*.

**Ca'put cæ'cum cõ'li** (L. the blind head of the colon).—Another name for the *cæcum*.

**Ca'put cor'nu posteriō'ris** (L. head of the posterior horn).—The enlargement at the back part of the posterior horn of the grey commissure of the spinal cord.

**Ca'put gallin'ginis** (L. woodcock's head).—The crest of the urethra.

**Ca'rapace** (a shield or covering).—In the Crustacea, that part of the exoskeleton which covers the cephalo-thorax. In the Chelonia, the dorsal exoskeleton or "shell."

**Carbon'ic acid gas,**      }  
**Carbon'ic anhy'dride,**      }  
**Carbon'ic diox'ide,**      } A poisonous gaseous compound of  
 oxygen and carbon, which is largely given off by all animals and plants.

**Car'diac** (Gr. *kardia*, the heart).—Relating to the heart. In the case of the stomach, the cardiac end is the end nearest the heart.

**Car'dinal pro'cess** (L. *cardo, cardinis*, a hinge).—A median process of the hinge line of the dorsal valve of the shell of the Brachiopoda.

**Car'dinal veins** (Gr. *kardia*, the heart).—Veins which run backwards and forwards, parallel with the vertebral column, and return the blood to the heart in the vertebrate embryo, and which in fishes persist through life.

**Car'diograph** (Gr. *kardia*, the heart; *grapho*, I write).—An instrument for registering the movements of the pulse, and causing them to trace curves upon a moving sheet of paper.

**Car'do** (L. a hinge).—The basal articulation of the maxilla of a cockroach.

**Cari'na** (L. a keel).—The two united petals of such a flower as that of a bean or pea (papilionaceous). The keel-like process of the sternum of most birds. The piece of the valve of a Cirripede Crustacean which is intermediate between the calcified pieces (*terga* and *scuta*) of each valve.

**Cari'natae** (L. *carina*, a keel).—A group of birds provided with a keel to the sternum.

**Carna'ssial** (L. *cāro, carnis*, flesh).—A term applied to the fourth premolar tooth of the dog, which bites scissor-like against the corresponding tooth in the other jaw.

**Carni'vora** (L. *cāro, carnis*, flesh; *vōro*, I devour).—An order of the Mammalia, the members of which feed largely on flesh.

**Carō'tid** (Gr. *kara*, the head; *ous*, the ear).—The principal arteries which convey blood to the head and lie close to the ears.

**Carpa'lia** (Gr. *karpos*, wrist).—The bones of the carpus.

**Car'pel** (Gr. *karpos*, fruit).—The modified leaf forming the pistil of a flower.

**Carpō'cerite** (Gr. *karpos*, wrist; *keraia*, a horn).—One of the segments of the antennæ of some Crustaceans.

**Carpō'podite** (Gr. *karpos*, wrist; *pous, pōdos*, a foot).—The fifth segment of the typical appendage of a Crustacean.

**Car'pus** (Gr. *karpos*, wrist).—The wrist. The segment of the fore-limb which unites the manus to the fore-arm in the *Vertebrata*, and which in man forms the wrist.

**Cartilage** (L. *cartilago*, gristle).—One of the animal tissues, commonly called "gristle."

**Cartilā'ginēs alā'rūm nā'si** (L. cartilages of the wings of the nostrils).—The lower lateral cartilages of the nose.

**Cartilā'ginēs laterā'lēs nā'si** (L. side cartilages of the nose).—The upper lateral cartilages of the nose.

**Cartilā'ginēs minō'rēs vel sesamoī'deæ** (L. minor, or sesamoid cartilages).—The cartilaginous nodules in the membrane which attaches the lower lateral cartilages to the upper maxilla.

**Cartilā'go trītī'cēa** (L. wheat-shaped cartilage).—A cartilaginous nodule frequently found in the lateral thyro-hyoid ligaments.

**Carun'cula lachrymālis** (L. *caruncula*, a little piece of flesh; *lacrīma*, a tear).—The small reddish eminence in the inner corner of each eye.

**Carun'culæ myrtifor'mēs** (L. *caruncula*, a little piece of flesh; *myrtus*, the myrtle; *forma*, form).—The little elevations of the wall of the vagina which remain after the rupture of the hymen.

**Casuā'ridæ**.—The Cassowaries, a group of birds.

**Catallac'ta** (Gr. *katalatto*, to change).—A group of the Protozoa, according to *Haeckel*.

**Cataly'tic** (Gr. *kataluo*, to dissolve).—Having the power to induce chemical decomposition of a compound by its mere presence.

**Catamē'nia** (Gr. *kata*, according to; *mēr*, the month).—A term applied to the monthly discharges from the uterus; the menses.

**Catarrhi'ni** (Gr. *kata*, near; *rhīn*, the nose).—One of the families of the Simiadæ (apes), having the septum of the nose thin, and therefore the nostrils close together.

**Can'da equi'na** (L. horse's tail).—The collection of nerve-roots in which the spinal cord ends.

**Can'dal** (L. *cauda*, a tail).—Relating to the tail, as the caudal vertebræ which form the skeleton of the tail.

**Can'date** (L. *cauda*, a tail).—Tail-like. Applied to those ganglionic corpuscles which have radiating processes.

**Cau'dex** (L. the stem or trunk of a tree).—The stem of palms and tree-ferns.

**Can'do-tibia'lis** (L. *cauda*, a tail).—A muscle which in the *Phocidae* passes from the anterior caudal vertebræ to the tibia.

**Cau'lis** (L. a stalk).—An aerial stalk of a plant.

**Ca'vum arteriō'sum** (L. arterial cavity).—The left portion of the ventricle in the turtles.

**Ca'vum pulmona'lē** (L. pulmonary cavity).—The portion of the ventricle in the turtles from which the pulmonary artery arises.

**Ca'vum veno'sum** (L. venous cavity).—The right portion of the ventricle in the turtles.

**Cēcomor'phæ** (Gr. *kēx*, *kōkos*, a sea-gull; *morphe*, form).—The Gulls, a group of birds.

**Cēleomor'phæ** (Gr. *kēlēos*, a woodpecker; *morphe*, form).—The Woodpeckers.

**Cel'lulose** (L. *cellula*, a little cell).—A vegetable substance of which the cell-wall of plants is composed.

**Cen'trum** (L. *centrum*, the centre of a circle).—The central portion, or body of a vertebra.

**Centrum ovā'le** (L. oval centre).—A mass of white substance in the cerebrum.

**Cephalas'pidæ** (Gr. *kēphalē*, the head; *aspis*, a shield).—An extinct sub-order of Ganoid fishes.

**Cephā'lic** (Gr. *kēphalē*, the head).—Relating to the head. Applied to a pair of nerve ganglia in the anterior part of the body in the Mollusca.

**Cēphalo-humera'lis** (Gr. *kēphalē*, the head; L. *humerus*, the upper part of the arm).—One of the muscles of the humerus in some Vertebrata.

**Cephalō'poda** (Gr. *kēphalē*, the head; *pus*, *pōdos*, a foot).—A division of the Mollusca, so called because the organs of locomotion are arranged round the head.

**Cephalos'tegite** (Gr. *kēphalē*, the head; *stego*, I cover).—The anterior division of the carapace in some Crustacea.

**Cēphalo-tho'rax** (Gr. *kēphalē*, the head; *thōrax*, a breast-plate).—The anterior portion of the body in the Crustacea and Arachnida, formed of the coalesced head and thorax.

**Cērato-hyal** (Gr. *kēras*, a horn).—The lower ossification of the hyoidean arch in the Teleostean fishes; represented in human anatomy by the lesser cornua of the hyoid bone.

**Cer'ci** (Gr. *kerkos*, a tail).—A pair of styles at the hinder extremity of the abdomen in the cockroach.

**Cerebel'lum** (L. the little brain).—The part of the brain which overlies the fourth ventricle.

**Cērēbrum** (L. the brain).—The brain proper; applied to all those parts which lie above the cerebellum.

**Ceru'men** (L. *cera*, wax).—The waxy secretion of the glands of the external ear.

**Ceru'minous glands** (L. *cera*, wax).—The glands which secrete the waxy material found in the external ear.

**Cervi'cal** (L. *cervix*, the neck).—Relating to the region of the neck.

**Cervi'cal sclerites** (L. *cervix*, neck ; Gr. *sklēros*, hard).—Thickenings in the chitinous skeleton of a cockroach in the region of the neck.

**Cervicālis ascen'dens** (L. ascending cervical).—One of the dorsal muscles of the trunk.

**Cer'vix** (L. neck).—The neck portion of an organ, as *Cervix Uteri*, the neck of the womb.

**Cestoi'dea** (Gr. *kestos*, a studded girdle).—The Tape-worms.

**Ceta'cea** (Gr. *kētos*, a whale).—An order of the Mammalia which embraces the whales and dolphins.

**Chætotog'natha** (Gr. *chaitē*, hair ; *gnathos*, a jaw).—A group of the Invertebrata, including only the genus *Sagitta*.

**Chalā'zæ** (Gr. *chalaza*, hail).—The twisted cord-like bodies which help to keep the yolk of an egg in position. The places where the vessels enter the nuclei of the ovules of a plant.

**Chalcīdea** (Gr. *chalkis*, a lizard).—A group of the Lacertilia.

**Chamæleo'nidæ** (Gr. *chamaileōn*, a chameleon).—A group of the Lacertilia.

**Cha'ra.**—One of the water-weeds.

**Charadiomor'phæ** (Gr. *charadrios*, the curlew ; *morphe*, form).—The Plovers, a group of birds.

**Cheilostō'mata** (Gr. *cheilos*, lip, margin ; *stōma*, *stōmatos*, a mouth).—A genus of Polyzoa.

**Cheiromy'ini** (Gr. *cheir*, *cheiros*, the hand ; *mus*, a mouse).—A family of Lemurs.

**Cheirop'tera** (Gr. *cheir*, *cheiros*, the hand ; *pterōn*, a wing).—A group of the Mammalia which comprises the bats.

**Chē'læ** (Gr. *chēlē*, a claw).—The fourth pair of thoracic appendages in the Crustacea, commonly known in the lobster as the great claws.

**Chē'lī'cera** (Gr. *chēlē*, a claw).—A pincer-like appendage on each side of the mouth in the Scorpions.

**Chelo'nia** (Gr. *chēlōnē*, a tortoise).—A group of the Reptilia which includes the tortoises and turtles.

**Chēnomor'phæ** (Gr. *chēn*, *chēnos*, a goose ; *morphe*, form).—The goose-like birds.

**Chev'ron bones** (Fr. a rafter).—Downward processes of the caudal vertebræ of some of the Vertebrata which enclose the backward continuation of the aorta.

**Chias'ma** (Gr. *chiaso*, I mark with the letter X, *chi*).—A crossing, as the chiasma of the optic nerves.

**Chilog'natha** (Gr. *cheilos*, the upper lip; *gnathos*, the upper jaw).—A division of the Myriapoda which comprises the Millipedes, in which the mandibles are covered by a kind of lip.

**Chilo'poda** (Gr. *cheilos*, the upper lip; *pous, podos*, a foot).—A division of the Myriapoda which comprises the Centipedes.

**Chi'tin** (Gr. *chiton*, a coat of mail).—The horny substance found in the exoskeletons of many of the Invertebrata.

**Chlā'mydate** (L. *chlāmydātus*, clothed in the *chlāmys*, a large woollen upper garment).—A term applied to those Branchiogasteropods which are provided with a mantle.

**Chlo'rophyll** (Gr. *chlōros*, green; *phyllon*, a leaf).—The (usually green) colouring matter of plants, developed only under the influence of light.

**Chlōrō'sis** (Gr. *chlōros*, green).—The green-sickness. A disease due to retention of the menses.

**Cho'anæ nā'rium** (Gr. and L. the funnels of the nose).—The openings of the posterior nares.

**Choles'terin** (Gr. *cholē*, bile; *stear*, suet).—A fatty substance found in bile and in some of the tissues.

**Chon'dro-cra'nium** (Gr. *chondros*, gristle; *kranion*, skull).—The cartilaginous model of the future skull in the vertebrate embryo.

**Chondros'teidæ** (Gr. *chondros*, gristle).—A sub-order of Ganoid fishes.

**Chor'da dorsālis** (L. the dorsal or back cord).—The embryonic structure, which forms the axis round which the bodies of the vertebræ are developed, and which in some of the Vertebrata persists through life.

**Chor'da tym'pani** (L. cord of the drum).—A small branch of the facial nerve, which traverses the drum of the ear and supplies the submaxillary gland.

**Chor'dæ tendī'neæ** (L. tendinous cords).—The cords which are attached on the one hand to the papillary muscles of the ventricles, and on the other to the flaps of the auriculo-ventricular valves of the heart.

**Chō'zion** (Gr. *chōrion*, skin).—The outer membrane which in the Mammalia surrounds the foetus.

**Cho'roid** (Gr. *choros*, a choir; *eidos*, form).—A structure made up of a combination of small blood-vessels, as the choroid plexuses of the brain and the middle coat of the eye.

**Chrōmā'tophores** (Gr. *chrōma*, colour; *phōreō*, I bear, carry).—Pigment-sacs in the integument of the Cephalopoda.

**Chry'salis** (Gr. *chrusos*, gold).—The pupa stage of an insect, so called because it is then sometimes of a golden colour.

**Chyle** (Gr. *chylos*, juice).—The nutritious fatty material taken up by the lacteals.

**Chyliifica'tion**.—The conversion of food into chyle.

**Chyme** (Gr. *chuma*, a thing poured).—The material of the food which passes from the stomach to the intestine.

**Chymifica'tion**.—The conversion of food into chyme.

**Cicatri'cula** (L. a little scar).—The scar left after the falling off of a leaf from a plant; the hilum or base of the seed of a plant. A term sometimes applied to the blastoderm or germinal membrane of an ovum.

**Cica'trix** (Latin).—A scar.

**Cil'lia** (L. *cilium*, an eyelash).—Minute spontaneously vibratile filaments found in various parts of the body of both higher and lower animals.

**Ciliary li'gament** (L. *cilium*, an eyelash; *ligo*, I bind).—See *Ciliary muscle*, for which it is an obsolete term.

**Ciliary mus'cle** (L. *cilium*, an eyelash).—A small muscle, situated between the anterior parts of the choroid and sclerotic coats of the eye.

**Ciliary pro'cesses** (L. *cilium*, an eyelash).—The anterior terminations of the choroid coat of the eye.

**Cilia'ta** (L. *cilium*, an eyelash).—A division of the Infusoria.

**Cingulum** (L. a girdle).—The basal part of the crown of a tooth. In the earthworm, a swollen region of the body into which more or fewer segments between the twenty-fourth and thirty-sixth enter.

**Cir'culus art'iculi vasculō'sus** (L. vascular circle of the joint).—The narrow vascular border formed by the synovial vessels round the articular cartilages.

**Cir'culus cephā'licus** (L. head-circle).—A circle formed by the arteries beneath the base of the skull in Teleostean fishes.

**Cir'culus ma'jor** (L. greater circle).—A vascular ring in the ciliary muscle.

**Circ'ulus mi'nor** (L. lesser circle).—A small vascular circle round the pupil.

**Cir'culus venō'sus** (L. venous circle).—A venous circle surrounding the base of the nipple of the mammary gland.

**Circumduc'tion** (L. *circum*, around; *dūco*, I lead).—The rotation of a limb round an imaginary axis, so as to trace out a conical surface.

**Circumoesophag'eal** (L. *circum*, around; Gr. *oiso*, future of *phē̄o*, I bear; *phāgein*, to eat).—Around the gullet, as the circumoesophageal nerve-commissures found in the *Crustacea*.

**Circumval'late** (L. *circum*, around; *vallum*, a rampart).—Surrounded by a rampart, as the circumvallate papillæ of the tongue.

**Cir'ri** (L. *cirrus*, a lock of hair).—Root-like filaments given off from the articulations of some Invertebrata.

**Cirripe'dia** (L. *cirrus*, a lock of hair; *pes*, *pē̄dis*, a foot).—A division of the *Crustacea* having curled jointed feet.

**Clas'pers**.—A pair of organs by the sides of the tail-fin of the male Rays, by which the female is grasped in the act of copulation.

**Claus'trum** (L. that which shuts off).—A grey lamina on the outside of the corpora striata of the human brain.

**Clā'vicle** } (L. *clāvīcula*, a little key).—The collar-bone.  
**Clā'vula** }

**Cleidomasto'i'deus** (Gr. *kleis*, the clavicle; and *mastoid process*).—One of the extrinsic muscles of the fore-limb.

**Clitel'lum** (L. *clitelæ*, a pack-saddle).—A region of the body of an earthworm which is swollen as compared with the other parts. See also *Cingulum*.

**Cli'toris** (Gr. probably from *kleio*, I enclose).—A small elongated part of the female sexual organs in the higher mammals.

**Clo'aca** (L. a sewer).—The common chamber which in many animals receives the urinary, generative, and intestinal secretions.

**Cly'peus** (L. *clypeus*, or *clāpeus*, a shield).—The broad flattened region of the head in a cockroach.

**Cnē'mial crest** (Gr. *knēmē*, leg, shin-bone).—A protuberance of the proximal end of the tibia, which is well marked in all walking and swimming birds.

**Cni'dæ** (Gr. *knidē*, a nettle).—The stinging thread-cells of the Cœlenterata.

**Coagula'tion** (L. *cōagulūm*, a clot).—The process of clotting, which some fluids such as blood and lymph undergo.

**Coccyge'al.**—Relating to the coccyx; composing the coccyx.

**Coccygomor'phæ** (Gr. *kokkux*, a cuckoo; *morphe*, form).—A division of the Carinate birds which includes the Cuckoos, Kingfishers, and Trogons.

**Coc'eyx** (Gr. *kokkux*, a cuckoo).—The term applied to the four posterior vertebræ of man, which unite to form a structure similar to the beak of a bird.

**Coch'lea** (L. a snail's shell).—A structure forming part of the internal ear.

**Cocoon'** (Fr. *cocon*; Gr. *kokkos*, a kernel).—The covering of an insect in the pupa state.

**Cœlentera'ta** (Gr. *koilos*, hollow; *enteron*, an intestine).—A group of the Metazoa which includes the Hydrozoa and the Actinozoa.

**Cœ'lial artery** (Gr. *koilia*, a hollow, the belly).—A short wide branch of the aorta given off just below the diaphragm.

**Cœ'lial canal** (Gr. *koilia*, the belly).—The largest of three canals which run in the arm in the Crinoidea.

**Cœn'en'chyma** (Gr. *koinē*, in common; *chuma*, something poured).—The intermediate skeletal layer developed in some Actinozoa in the process of gemmation or fission, by the new polype, and which is continuous with that of the other polypes.

**Cœ'nosarc** (Gr. *koinē*, in common; *sarx*, flesh). The common stem which sometimes unites the buds of a hydrozoon.

**Co'itus** (L. a coming together).—The congress of the sexes.

**Côleō'ptera** (Gr. *kōleos*, a sheath; *pteron*, a wing).—The beetles, so called because the anterior chitinous wings form cases for the posterior membranous pair.

**Côleorhi'za** (Gr. *kōleos*, a sheath; *rhiza*, a root).—A wreath which encloses the radicle of an endogenous embryo.

**Collă'teral sul'cus.**—The groove in the cerebral hemispheres which gives rise to the collateral eminence in the lateral ventricles.

**Collête'rial glands** (Gr. *kollētos*, glued).—Two glands in the cockroach which probably give rise to the cases of the eggs.

**Colli'culus** (L. a little hill).—A small elevation.

**Colli'culus bul'bæ urē'threæ** (L. little eminence of the bulb of the urethra).—A layer of spongy tissue surrounding the bulb of the urethra.

**Colli'culus ner'vi op'tici** (L. little eminence of the optic nerve).—A small eminence on the retina where the optic nerve expands.

**Colli'culus semina'lis** (L. little seminal eminence).—The crest of the urethra.

**Colloids** (Gr. *kolla*, glue; *eidos*, shape).—Substances like glue or gum. Substances which dissolve imperfectly, and which are but little diffusible through membranes.

**Colon** (Gr. *kōlon*, a limb, the great gut).—The second part of the large intestine.

**Colo'strum** (L. *colostra*, the first milk of a cow after calving).—The first milk secreted after the birth of a child.

**Colum'ba** (L. *columba*, a dove).—The pigeons; a group of birds.

**Columella** (L. a little column).—The projection above the collar of the stalk in some moulds, as in *mucor mucedo*, which projects into the sporangium. Also the name of a bone in the skull of the *Lacertilia*, which extends from the parietal to the pterygoid bones on each side. Also a core of connective tissue in the central cavity of a *Crinoid*.

**Columel'la au'ris** (L. little ear column).—A small bone, which in birds, most reptiles, and some amphibia represents the ossicula auditus of the middle ear of the higher Vertebrata.

**Columel'la coch'leæ** (L. little column of the cochlea).—The central pillar or modiolus of the cochlea of the internal ear.

**Colum'nae Berti'ni** (L. columns of Bertini).—Prolongations of the cortical substance of the kidney, which pass between the pyramids.

**Colum'nae carne'æ** (L. fleshy columns).—The muscular eminences on the wall of the ventricles of the heart.

**Colum'nae rec'ti** (L. straight columns, or columns of the rectum).—Mucous folds of the rectum.

**Colum'nae rugārum** (L. columns of the rugæ).—An elevated ridge extending across the rugæ, or fold of the mucous membrane of the vagina.

**Co'ma** (Gr. *kōma*, a deep sleep).—A state of unconsciousness brought about by morbid causes, such as compression of the brain.

**Cōmēs** (L. a companion; pl. *cōmitēs*).—A term applied to those veins which accompany the arteries.

**Com'missure** (L. *con*, together; *mitto*, I send).—A joining. A connecting link between two parts, as the commissures which unite the nerve ganglia in the Invertebrata.

**Complex'us** (L. an embrace, a surrounding).—The name given to one of the dorsal muscles of the trunk.

**Cona'rium** (L. *conus*, the fruit of the fir).—The pineal gland.

**Con'cha** (L. a shell).—The largest concavity of the external ear.

**Conchí'fera** (L. *concha*, a shell; *fēro*, I bear).—A name sometimes applied to the Lamellibranchiata.

**Con'dyle** (Gr. *kondulos*, a knuckle).—Generally applied to the flattened articular surface of a bone.

**Confer'væ** (L. *confervēre*, to unite).—Vegetable organisms which consist of strings of united cells.

**Conglo'bate** (L. *con*, together; *glōbus*, a ball).—A term applied to such glands as the lymphatic glands.

**Conglō'merate** (L. *con*, together; *glōmēro*, I gather in a round heap).—Applied to such glands as the salivary glands, pancreas, &c., which are also termed "racemose."

**Cōni' vasculō'si** (L. vascular cones).—The conical convoluted branches of the *vasa efferentia* of the testicle.

**Cōni'diophore** (Gr. *kōnis*, dust; *phōreo*, I bear).—The filaments which bear the conidia of fungi.

**Cōni'dium** (Gr. *kōnis*, dust).—The spores of such fungi as *Penicillium*.

**Conjuga'tion** (L. *conjugāre*, to unite).—A mode of vegetable reproduction in which cells of adjacent hyphæ unite.

**Conjuncti'va** (L. *conjugāre*, to connect).—The mucous membrane which lines the eyelids, and is reflected over the anterior part of the eyeball.

**Con'nate** (L. *con*, together; *nātus*, born).—A term applied to parts of plants (as the bases of leaves) which at an early stage of development become united.

**Cō'nus artēriō'sus** (L. arterial cone).—The conical prolongation of the right ventricle from which the pulmonary artery springs.

**Cō'nus medullā'ris** (L. medullary cone).—The tapering portion of the spinal cord below the lumbar enlargement.

**Co-or'dination** (L. *cōrīor*, I come forth at once).—The acting together with regard to due force and sequence of different muscles.

**Copē'poda** (Gr. *kōpeus*, a chisel; *pous*, *pōdos*, a foot).—A group of the Crustacea.

**Cō'raco-brachiā'tis** (*coracoid bone*; L. *brachialis*, belonging to the the arm).—One of the muscles on the ventral surface of the fore-limb, passing from the coracoid bone to the humerus in some Vertebrata.

**Cō'racoid** (Gr. *kōrāx*, a crow; *eidos*, shape).—One of the bones of the shoulder-girdle in most vertebrate animals, represented in man by the coracoid process of the scapula.

**Cōracomor'phæ** (Gr. *kōrax*, a crow; *morphe*, form).—The crows and sparrow-like birds.

**Corallif'gēna** (Gr. *korallion*, coral; *gennao*, I produce).—The group of the Actinozoa which comprises the organisms which produce coral.

**Coral'lum** (L. coral).—The calcareous secretion of the Actinozoa, usually termed "coral."

**Cor'bula** (L. a little basket).—The common receptacle in the genus *Aglaophenia* of the Hydrophora which encloses groups of gonangia.

**Cōri'ceous** (L. *cōrium*, leather).—Leathery. Belonging to, or like leather.

**Co'rium** (L. skin).—The true-skin or dermis.

**Cor'nea** (L. *corneus*, horny).—The transparent modification of the sclerotic coat of the eye, which encloses the anterior part of the eyeball.

**Corni'cula laryn'gis** (L. the little horns of the larynx).—Two small cartilaginous nodules of the arytenoid cartilages of the larynx.

**Cor'nu** (L. a horn; pl. *cornua*).—Applied to horn-like projections of various structures in the body, as the cornua of the hyoid bone, cornua of the cerebral ventricles, &c.

**Cor'nu Am'monis**.—Another name for the *hippocampus major* of the cerebral hemispheres.

**Cōr'olla** (L. *corolla*, a little crown).—The inner floral envelope of a flowering plant.

**Cōr'ona glan'dis** (L. crown of the gland).—The rounded border of the penis.

**Cōr'ona radia'ta** (L. radiating crown).—A term applied to the radiating fibres in the cerebral hemispheres.

**Cōr'onary** (L. *cōrōna*, a crown).—Applied to the blood-vessels which supply the substance of the heart. Also the name given to one of the bones of the *mandible* in some *Vertebrata*.

**Cōr'ronoid** (Gr. *kōrōnē*, a crow; *eidos*, form).—Crow-shaped; as the coronoid process of the lower jaw.

**Cor'pora albican'tia** (L. whitish bodies).—Two small white eminences on the base of the brain.

**Cor'pora Aran'tii** (L. bodies of Arantius).—Thickenings on the edges of the semilunar valves of the arteries.

**Cor'pora bigēmina** (L. two twin bodies).—The optic lobes of the brain of birds and fishes.

**Cor'pora caverno'sa clitorī'dis** (L. cavernous body of the clitoris).—The two cavernous bodies which unite to form the clitoris.

**Cor'pora caverno'sa pe'nis** (L. cavernous bodies of the penis).—The two bodies which form the principal part of the penis.

**Cor'pora genicula'ta** (L. the bodies with bent knee).—Two small eminences in front of the *corpora quadrigemina* of the brain.

**Cor'pora quadrigēmina** (L. the four twin bodies).—Four hemispherical elevations of the roof of the *iter* of the brain in the higher Vertebrata, which correspond to the corpora bigemina of birds and fishes.

**Cor'pora stria'ta** (L. striped bodies).—Two masses of nerve tissue, one in the floor of each lateral ventricle of the brain.

**Cor'pora trapezoi'dea** (L. trapezoid bodies).—Elevations found in the medulla oblongata of some mammals.

**Cor'pus adipō'sum** (L. fatty body).—A body connected with the kidney in some Vertebrata. Also applied to the substance which fills up the space between the walls of the abdomen and the contained organs in the *Insecta*.

**Cor'pus callo'sum** (L. hard body).—The mass of nerve tissue, which in the Mammalia unites the cerebral hemispheres.

**Cor'pus ciliā're** (L. ciliary body).—The toothed mass of grey matter in the olfactory bodies of the medulla oblongata, usually termed the *corpus dentatum*.

**Cor'pus fimbriā'tum** (L. fringed body).—A narrow white band in each of the cerebral hemispheres.

**Cor'pus Highmoriā'num** (L. body of Highmore).—The incomplete vertical septum formed in the testicle by a process of the tunica albuginea.

**Cor'pus lu'teum** (L. yellow body).—The reddish-yellow cellular mass which forms in the Graafian follicle of a mammalian ovary after the discharge of the ovum.

**Cor'pus mammillā're** (L. the mammillary body).—Another name for each of the *corpora albicantia*, which see.

**Cor'pus spongiō'sum** (L. spongy body).—A mass of erectile tissue which surrounds the urethra in the male.

**Cor'pus u'teri** (L. body of the womb).—The part of the womb between the fundus and the neck.

**Corpus'cle** (L. a little body).—The solid cellular bodies found in blood, lymph, &c.

**Corpus'cula** (L. little bodies).—Small bodies found in the embryo sac of coniferous trees, and which correspond to the archegonia of ferns.

**Corpus'cula tac'tūs** (L. little touch bodies).—Small oval bodies found in those parts of the skin which are most sensitive to touch.

**Cortex** (L. bark).—The bark of trees. The outer part of an organ.

**Cort'ical** (L. *cortex*, bark).—Relating to the bark. Applied to the outer portion of an organ or organism.

**Cos'tal** (L. *costa*, a rib).—Relating to the ribs. Costal respiration is that part of the respiratory function which is performed by the movements of the ribs.

**Cotylē'don** (Gr. *kotulēdōn*, a cup-shaped hollow).—The temporary seed-leaf of an embryo plant. Applied also to each of the bunches of foetal villi which occur in the placenta of some mammals.

**Cotylō'phora** (Gr. *kotulos*, a cup; *phōreo*, I bear).—A group of Ruminants, the placenta of which exhibits cotyledons.

**Cox'a** (L. the hip).—The basal joint of the leg in insects.

**Coxō'cerite** (L. *coxa*, the hip; Gr. *kīras*, a horn).—The basal joint of the antennæ in the Crustacea.

**Coxō'podite** (L. *coxa*, the hip; Gr. *pous*, *pōdos*, a foot).—The proximal joint of the typical limb of a Crustacean.

**Cra'nium** (Gr. *kranion*, the skull).—The skull, brain-case.

**Cras'peda** (Gr. *kraspedon*, a border or edge).—The convoluted cords attached to the mesenteries in the Actinozoa.

**Crassamen'tum** (L. *crassus*, thick).—The solid clot of a coagulated material.

**Cremas'ter** (Gr. *krēmao*, I suspend).—A muscle of the abdomen found only in the male, and which supports the testicle.

**Crib'riform** (L. *cribrum*, a sieve; *forma*, shape).—Sieve-like. Applied to that portion of the ethmoid bone through the perforations of which the fibres of the olfactory nerves pass to the nasal cavities.

**Cri'co-arytenoi'dei laterā'les** (L. lateral crico-arytenoid).—A pair of muscles which by their contraction close the glottis.

**Cri'co-arytenoi'dei posti'ci** (L. posterior crico-arytenoid).—A pair of muscles which by their contraction dilate the glottis.

**Cri'co-thyroi'dei** (L. crico-thyroid).—A pair of muscles which by their contraction stretch the vocal cords.

**Cri'coid** (Gr. *krikos*, a ring; *eidos*, form).—The ring-like cartilage of the larynx.

**Cris'ta acu'stico** (L. acoustic crest).—A small projection in the ampullæ of the membranous semicircular canals of the ear.

**Cris'ta gal'li** (L. cock's comb).—A ridge in the ethmoid bone of the skull to which the *falk cerebri* is attached.

**Cris'ta il'i** (L. crest of the ilium).—One of the borders of the iliac bone.

**Cris'ta uré'thræ** (L. crest of the urethra).—A small ridge in the lining membrane of the urethra.

**Cris'ta vesti'boli** (L. crest of the vestibule).—A vertical ridge in the vestibule of the ear.

**Crocodi'lia**—A group of the Reptilia which includes the crocodiles, alligators, &c.

**Crocodi'lidae** (Gr. *krokodeilos*, a crocodile).—A subdivision of the Crocodilia which comprises the crocodiles proper.

**Crossoptery'gidæ** (Gr. *krossos*, a fringe; *pterux*, a wing, fin).—A sub-order of Ganoid fishes.

**Cro'taphite** (Gr. *krōtaphos*, the temples).—A term sometimes applied to the temporal artery, vein, and muscle.

**Cru'cial** (L. *crux*, *crūcis*, a cross).—In the shape of a cross.

**Cru'ra cér'e bri** (L. legs of the cerebrum).—Two bundles of nerve fibres containing grey matter, which form the floor of the *iter* of the brain.

**Crus** (L. the leg).—That portion of the lower or posterior extremity of the Vertebrata which lies between the femur and the tarsus. Also applied to any leg-like process.

**Crusta petro'sa** (L. stony crust).—A substance resembling bone which coats the fangs of teeth, and in some cases fills up depressions in the enamel.

**Crypt** (Gr. *krupto*, I conceal).—A term sometimes applied to simple tubular glands.

**Cryptoga'mia** (Gr. *kruptos*, hidden; *gāmos*, marriage).—Plants, the reproductive organs of which are not readily visible, and which are sometimes termed "flowerless."

**Cryptor'chismus** (Gr. *krupto*, I conceal; *orchis*, a testicle).—Retention of the testes in the abdomen.

**Crys'talline lens**.—The lens-shaped transparent body which is contained in the eyeball, and which assists in focussing the rays of light upon the retina.

**Crys'talloids** (Gr. *krustallos*, crystal; *eidos*, form).—Substances which are generally capable of being crystallized, and the solutions of which pass readily through membranes.

**Ctenobranchia'ta** (Gr. *kteis*, *ktēnos*, a comb; *branchia*, a gill).—A group of the Branchiogasteropoda.

**Cte'noi'd** (Gr. *kteis*, *ktēnos*, a comb; *eidos*, form).—A term applied to the scales of fishes which have comb-like edges.

**Ctenoph'ora** (Gr. *kteis*, *ktēnos*, a comb; *phōreo*, I bear).—A group of the Actinozoa which possess swimming organs in the shape of comb-like bands of cilia.

**Ctenostō'mata** (Gr. *kteis*, *ktēnos*, a comb; *stōma*, *stōmatos*, a mouth, opening).—A group of the Polyzoa.

**Cubo'i'dēs** (Gr. *kubos*, a cube; *eidos*, form).—One of the bones of the tarsus.

**Culm** (L. *culmus*, a stalk).—The stem or stalk of grasses.

**Cuma'cea** (Gr. *kuma*, a wave).—A group of the Crustacea.

**Cu'mulus** (L. a heap).—A thickened portion of the lining cellular layer of a ripe Graafian follicle, in which the ovum is embedded, and which is usually termed the *discus proligerus*.

**Cu'neiform cartilage** (L. *cūnēus*, a wedge; *forma*, form).—A very small cartilaginous body placed on each side of the larynx in the fold of mucous membrane which extends from the arytenoid cartilage to the epiglottis.

**Cu'neiformē** (L. *cūnēus*, a wedge; *forma*, form).—One of the bones of the carpus, sometimes termed ulnare. Also applied, according to one system of nomenclature, to three of the bones of the tarsus.

**Cu'pola** (Italian, a dome).—The summit of the cochlea of the internal ear.

**Cur'sorēs** (L. *curro*, I run).—According to the old scheme of classification of the class Aves, an order which included those birds which are destitute of the power of flight.

**Cus'pide** (L. *cuspis*, the point of a weapon).—Having pointed eminences or “cusps.” A term sometimes applied to the canine teeth.

**Cuta'neous** (L. *cutis*, the skin).—Relating to the skin.

**Cu'ticle** { (L. dim. of *cutis*, the skin).—Another name for the epidermis. In plants, the thin layer which covers the epidermis.

**Cū'tis vē'ra** (L. true skin).—The under vascular and sensitive layer of the skin, also termed the dermis.

**Cyano'sis** (Gr. *kuanōs*, dark-blue).—A condition in which the skin is blue, as the result of the non-closure of the foramen ovale between the auricles of the heart, and the consequent imperfect aeration of the blood.

**Cyathozo'oid** (Gr. *kuathos*, a cup, bowl; *zōon*, an animal; *eidos*, shape).—A structure formed in the course of development in some of the Ascidioidea.

**Cy'cloid** (Gr. *kuklos*, a circle; *eidos*, shape).—A term applied to those fish-scales which are circular in form.

**Cyclō'sis** (Gr. *kuklōsis*, a moving round).—The circulation of fluids in the cells of plants.

**Cyclostō'mata** (Gr. *kuklos*, a circle; *stōma*, *stōmatos*, an opening, mouth).—A group of the Branchiogasteropoda.

**Cynoi'dea** (Gr. *kuōn*, *kunos*, a dog).—A group of the Carnivora which comprises the dogs, wolves, jackals, and foxes.

**Cynomor'pha** (Gr. *kuōn*, *kunos*, a dog; *morphe*, form).—The dog-like group of apes.

**Cyprinoi'dei** (L. *cyprinus*, a carp).—A group of Teleostean fishes.

**Cypselomor'phæ** (Gr. *cypselus*, the generic name of the swifts; *morphe*, form).—A subdivision of Carinate birds which comprises the swifts.

**Cyst** (Gr. *kustis*, a bladder).—A bladder-like sac.

**Cys'tic** (Gr. *kustis*, a bladder).—Belonging to a bladder, as the cystic duct which leads to the gall-bladder; also having bladders or cysts, as a cystic tumour.

**Cys'tid** (Gr. *kustis*, a bladder).—The saccular ciliated embryo of the fresh-water Polyzoa.

**Cysti'dea** (Gr. *kustis*, a bladder).—A group of extinct Echinoderms.

**Cy'toblast** (Gr. *kutos*, a hollow body; *blastos*, a bud, shoot).—Another term for the nucleus of a cell.

**Cy'tode** (Gr. *kutos*, a hollow body).—A nucleated protoplasmic cell.

**Cytō'genous** (Gr. *kutos*, a hollow body; *gennao*, I produce).—Cell-producing; applied to a form of connective tissue.

## D.

**Dactylō'podite** (Gr. *daktulos*, a finger; *pous*, *pōdos*, a foot).—The terminal joint of the ambulatory appendages in some Crustaceans.

**Dar'tos** (Gr. *dēras*, a skin).—One of the tunics of the scrotum.

**Dasyprō'didæ** (Gr. *dasus*, rough, hairy; *pous*, *pōdos*, a foot).—The subdivision of edentate mammals which comprises the armadillos.

**Decā'poda** (Gr. *deka*, ten; *pous*, *pōdos*, a foot).—The dibranchiate cephalopods which have ten arms.

**Deci'dua reflexa** (L. *deciduus*, falling; *reflectere*, to bend back).—That portion of the internal growth (*decidua*) of the pregnant uterus discharged in parturition which is reflected over the ovum.

**Decidua serotina** (L. *deciduus*, falling; *serotinus*, slowly ripening).—The part of the decidua which intervenes between the ovum and the uterus.

**Decidua vera** (L. *deciduus*, falling; *verus*, true).—That portion of the decidua which lines the uterus, except where the ovum is attached to it.

**Decidua'ta** (L. *deciduus*, falling).—A division of the Monodelphia in which the maternal part of the placenta is thrown off with the foetus.

**Deciduous** (L. *deciduus*, falling).—A term applied to those trees which shed their leaves annually; also to the first, or milk teeth of mammals.

**Decus'sate** (L. *decusso*, I cross over).—To cross over the middle line, as the nerve fibres do at the decussation of the anterior pyramids.

**Defæca'tion** (L. *de*, down; *fæx*, *fæcis*, dregs).—The act of emptying the bowels.

**Deglut'i'tion** (L. *de*, down; *glutio*, I swallow).—The act of swallowing.

**Dehis'ce** (L. *dehiscere*, to gape, open).—To open, as does a seed-vessel when ripe.

**Deinosau'ria** (Gr. *deinos*, terrible; *sauros*, a lizard).—An extinct order of Reptiles.

**Delâ'mination** (L. *de*, away from; *lamina*, a layer).—A coming away in layers.

**Delphinoi'dea** (Gr. *delphis*, *delphinos*, a dolphin; *eidos*, form).—The division of the Cetacea which comprises, amongst other forms, the dolphins.

**Deltoi'des** (Gr. the letter  $\Delta$ , *delta*).—Shaped like the Greek letter delta. A triangular muscle on the shoulder, also termed the *humeralis*; it is attached to the *deltoid* ridge of the *humerus*.

**Dendroco'la** (Gr. *dendron*, a tree; *koilia*, a hollow, the bowels).—A division of the Turbellaria in which the digestive cavity gives off cæcal processes which are frequently branched.

**Dent'ary** (L. *dens*, *dentis*, a tooth).—The bone of the lower jaw which contains the teeth. Relating to the teeth.

**Dent'ate** (L. *dens*, *dentis*, a tooth).—Toothed. Applied to the second or axis vertebra, because of its tooth-like process.

**Dent'ine** (L. *dens*, *dentis*, a tooth).—The calcified material which forms the chief constituent of a tooth.

**Depres'sor pal'pebræ infe'riō'ris** (L. the depressor of the lower eyelid).—The muscle which depresses the lower eyelid.

**Depura'tion** (L. *depūro*, to cleanse, purify).—The clearing away of impurities.

**Der'mal** (Gr. *derma*, a skin).—Relating or belonging to the skin.

**Der'mis** (Gr. *derma*, a skin).—The vascular layer of the skin, sometimes called the true skin, also the *cutis vera*.

**Derotrēma'ta** (Gr. *derē*, neck ; *trēma*, a hole).—A division of the Urodele amphibians having one or two gill-clefts on each side of the neck.

**Desmō'gnāthæ** (Gr. *desmos*, a bond ; *gnāthos*, a jaw).—A term applied to those Carinate birds which have the maxillo-palatine bones united.

**Desquama'tion** (L. *de*, away from ; *squama*, a scale).—The falling away of scales.

**Detrū'sor urī'næ** (L. *detrūdēre*, to push away, eject ; *urīna*, urine).—A muscle of the bladder, the contraction of which assists in the discharge of the urine.

**Deuterostō'matous** (Gr. *deuteros*, second ; *stōma*, a mouth, opening).—A term applied to a *gastrula* in which the original blastopore completely closes up, a new aperture or apertures being subsequently formed.

**Diabe'tes** (Gr. *dia*, through ; *baino*, I go on).—A disease in which an abnormal secretion of liver sugar takes place, and is passed out of the system in the urine, the secretion of which is also greatly augmented.

**Diagnō'sis** (Gr. distinguishing, deciding).—The recognition of a disease by its symptoms.

**Diālysis** (Gr. *dia*, apart ; *luo*, I loosen).—The passage of a crystalloid substance by diffusion through a septum from one fluid to another.

**Diā'phragm** (Gr. *dia*, across ; *phragma*, a fence).—The muscular partition which separates the abdominal and thoracic cavities in the Mammalia.

**Diā'physis** (Gr. *dia*, through ; *phusis*, growth).—The centre of ossification in the shaft of a long bone.

**Diāpō'physis** (Gr. *apophuu*, to sprout).—The superior transverse process of a vertebra when two such processes are present.

**Diarthrō'sis** (Gr. *dia*, through ; *arthron*, a joint).—An anatomical term for a movable articulation of bones.

**Diaste'ma** (Gr. *dia*, apart ; *histēmi*, to place).—A gap or interval, as between teeth.

**Dias'tolē** (Gr. *diastello*, to dilate).—The rhythmical expansion or dilatation of the heart.

**Di'atom** (Gr. *diatēmno*, to separate, cut through).—A minute vegetable organism provided with a flinty covering.

**Dibranchia'ta** (Gr. *dis*, double; *branchia*, a gill).—The group of Cephalopods which possess two gills.

**Dichō'tomous** (Gr. *dichotomia*, a division into two parts).—Twice divided; doubly forked.

**Dicotylē'dōnous** (Gr. *dis*, double; *kotylēdōn*, a cup-shaped hollow).—The group of plants the embryos of which have two seed-leaves or cotyledons.

**Dicro'tic** (Gr. *dis*, double; *krōteo*, I beat).—Having a double beat; applied to the arterial pulse when exhibiting this phenomenon.

**Dicyē'mida** (Gr. *dis*, double; *kuēma*, embryo).—A group of parasitic animals found in the renal organs of Cephalopods, and placed provisionally between the Protozoa and the Metazoa, under the designation of Mesozoa. The embryo exists under two forms.

**Dicynodon'tia** (Gr. *dis*, double; *kynodus*, *kynodontos*, a dog's tooth).—A group of extinct reptiles having usually two large tusks.

**Didac'tyle** (Gr. *dis*, double; *daktylos*, a finger).—Having two digits.

**Didel'phia** (Gr. *dis*, double; *delphus*, the womb).—A group of mammals, so called because the vagina is double.

**Dience'phalon** (Gr. *dia*, between; *enképhalon*, the brain).—The posterior division of the anterior primary cerebral vesicle, usually termed the Thalamencephalon.

**Dietē'tics** (Gr. *diaitao*, to feed).—A term for the consideration of a system of regulating the diet, so as best to secure the restoration or maintenance of health.

**Digas'tric** (Gr. *dis*, double; *gastēr*, the belly).—Two-bellied; applied generally to muscles which are fleshy at each end, and have a tendon in the middle. Specially applied to the muscle which depresses the lower jaw.

**Dī'git** (L. *digitus*, the finger or toe).—A finger or toe.

**Digi'tigrade** (L. *digitus*, the finger or toe; *grādus*, a step).—Walking on the toes, these being the only parts of the foot which touch the ground in digitigrade animals.

**Dimor'phodon** (Gr. *dis*, double; *morphe*, form; *ōdous*, *ōdontos*, a tooth).—A genus of extinct Pterosaurians having the posterior teeth very short, the anterior long.

**Dinorni'thidae** (Gr. *dinōo*, to spin round; *ornis*, *ornithos*, a bird).—A subdivision of ratite birds which comprises the moas.

**Diœ'cious** (Gr. *dis*, double; *oikia*, a house).—Having the sexes in two separate individuals; applied also to plants having female flowers on one individual and male flowers on another of the same species.

**Diop'trics** (Gr. *diōptomai*, I see through).—The branch of the science of light which treats of refraction.

**Diphyce'ral** (Gr. *diphues*, mixed, two-fold; *kerkos*, a tail).—Applied to the tails of fishes when the extremity of the spine divides the caudal fin-rays into two equal or nearly equal parts.

**Diplō'e** (Gr. *diploos*, double).—The spongy texture in tubular bones, so called because enclosed between two plates of compact bony tissue.

**Dip'noi** (Gr. *dis*, double; *pneu*, I breathe).—A group of fishes closely approximating to the Amphibia.

**Dip'tera** (Gr. *dipteros*, having two wings).—The subdivision of the Insecta which comprises the flies and fleas.

**Discoi'dea** (Gr. *diskos*, a disc or quoit).—A subdivision of the deciduate mammalia in which the placenta forms a thick disc.

**Discōphora** (Gr. *diskos*, a disc or quoit; *phōreo*, I bear).—A group of Hydrozoa, comprising amongst other forms the so-called “jelly-fish.”

**Dis'cus proli'gerus** (I. *discus*, a quoit; *prolēs*, progeny; *gēro*, I bear).—The thickened portion of the granular lining of a Graafian follicle in which the ovum is embedded.

**Disdi'acast** (Gr. *dis*, twice; *diaklao*, I break).—A term given to the segments produced in cell division.

**Dis'tal**.—The part of a muscle, nerve, or other organ which is most distant from the origin or from a fixed point.

**Diurētic** (Gr. *dia*, through; *ourēo*, to pass water).—Having the property of increasing the secretion of urine.

**Divert'iculum** (L. a by-road).—A pouch-like process given off from any principal passage or canal.

**Dōl'ichosau'ria** (Gr. *dōlichos*, long; *sauros*, a lizard).—A subdivision of the *Lacertilia*, now extinct, of which the only known form (Dolichosaurus) has a greatly elongated body.

**Dor'sal** (L. *dorsum*, the back).—Relating to the back; opposite to the belly.

**Dromæog'nathæ** (Gr. *dromaios*, running, swift; *gnathos*, a jaw).—A subdivision of Carinate birds.

**Duct of Bar'tholin**.—One of the ducts of the sublingual gland.

**Duct of Gaert'ner.**—A tube derived from the middle part of the Wolffian duct, which exists in connexion with the uterus of the sow and several ruminants.

**Ducts of Belli'ni.**—The excretory tubes of the kidney.

**Ducts of Cu'vier.**—Two short veins which in early foetal life open, one on each side, into the heart.

**Ducts of Rivi'nus.**—The ducts of the sublingual salivary gland which open separately into the mouth.

**Duc'tus ad na'sum** (L. duct to the nose).—The nasal duct, by which the tears are conveyed to the nose.

**Duc'tus arteriō'sus** (L. arterial duct).—A short duct which during foetal life connects the pulmonary artery and aorta.

**Duc'tus Botal'li** (L. duct of Botallus).—A duct which in some of the Amphibia is produced by the obliteration of the upper part of the first pair of aortic trunks.

**Duc'tus cochlea'ris** (L. duct of the cochlea).—The membranous canal of the cochlea of the internal ear.

**Duc'tus commū'nis chōlē'dōchus** (Gr. *chōlē*, bile; *dechomai*, I receive).—The common bile-duct.

**Duc'tus venō'sus** (L. venous duct).—A duct which in foetal life connects the *inferior vena cava* and the *portal vein*.

**Duc'tus vitello-intestinā'lis** (L. vitello-intestinal duct).—The duct by which the primitive intestine and the yolk sac communicate in the vertebrate embryo.

**Duōdē'num** (!. *duodēni*, twelve).—The first portion of the small intestine so called from being in some animals about twelve 'fingers' breadth in length.

**Du'ra mā'ter** (L. hard mother).—The tough fibrous outer investment of the brain and spinal cord.

**Dū'ramen** (L. hardness).—The heart-wood of exogenous trees.

**Dyspnoē'a** (Gr. *dyspnoia*, difficulty of breathing).—The first stage of asphyxia or suffocation. Laboured breathing.

**Dysporomor'phæ.**—A subdivision of the Carinate birds which comprises the Cormorants.

## E.

**Ec'deron** (Gr. *ecdēro*, I skin, flay).—The outer layer of the integument in the lower animals corresponding to the epidermis in the higher.

**Ec'dysis** (Gr. *ekdusis*, a going out).—The periodical casting of the shell which takes place in some of the *Crustacea* and *Insecta*.

**Echinide'a** (Gr. *echinos*, a sea-urchin, hedge-hog).—The sea-urchins.

**Echinoder'mata** (Gr. *echinos*, a hedge-hog; *derma*, skin).—A division of the Invertebrata which includes the sea-urchins and star-fishes. So called from the spines with which the integument is usually furnished.

**Ec'tocyst** (Gr. *ektos*, outside; *kustis*, a bladder).—The outer covering of the Polyzoa.

**Ec'toderm** (Gr. *ektos*, outside; *derma*, skin).—The outer layer of the body of an invertebrate animal, formed from the epiblast of the ovum.

**Ectoproc'ta** (Gr. *ektos*, outside; *prōktos*, the seat or anus).—A group of Polyzoa in which the anus lies outside the circle of tentacles.

**Ectoptērygoid** (Gr. *ektos*, without; *pteryx*, a wing; *eidos*, shape).—One of the bones of the skull in some Vertebrata.

**Ec'tosarc** (Gr. *ektos*, outside; *sark*, flesh).—The outer layer of sarcode in the Amœba.

**Edrioastērida** (Gr. *ēdraios*, sitting, stable; *astēr*, a star).—A group of extinct Echinoderms.

**Edriophthal'mia** (Gr. *ēdraios*, sitting, stable; *ophthalmos*, an eye).—A group of Crustaceans in which the eyes, when present, are either without stalks or seated upon immovable ones.

**Efferent** (L. *e*, out of; *fēro*, I bear, carry).—Carrying away, as the efferent nerves which carry nervous impulses from a nerve-centre.

**Eges'ta** (L. *egestio*, getting rid of).—Material excreted by the alimentary canal.

**Elasmobran'chii** (Gr. *elasmos*, a plate; *branchia*, a gill).—An order of fishes comprising the sharks, rays, and the chimæra.

**Electrōtonos** (Gr. *elektron*, amber; *tōnos*, tension, tone).—The electric condition of a nerve when a current of electricity passes through any part of it.

**Ely'tra** (Gr. *ēutron*, a sheath).—The front pair of chitinous wings, which in the beetles overlap the hinder membranous pair.

**Em'boly** (Gr. *embolē*, injection).—Another term for the invagination of the blastosphere in the development of the Invertebrata, whereby the hypoblast becomes enclosed within the epiblast.

**Em'bryo** (Gr. *en*, in; *bruo*, I swell).—The earliest stage in which an animal may be discerned in the ovum. Also applied to the rudiment of the future plant in the seed.

**Eminen'tia collaterālis** (L. collateral eminence).—A small smooth eminence in the cerebral hemispheres between the hippocampi major and minor.

**Eminen'tia papillāris** (L. papillary eminence).—A small conical eminence behind the *fenestra ovalis* of the human ear.

**Eminen'tia pyramidālis** (L. pyramidal eminence).—A vertical ridge in the vestibule of the human ear, also termed *crista vestibuli*.

**Eminen'tia tērēs** (L. rounded eminence).—A small eminence in the medulla oblongata.

**Emunc'tory** (L. *emungo*, I wipe).—Any part by which waste matter is got rid of.

**Emy'dea** (Gr. *emus*, a fresh-water tortoise).—A group of the Chelonia which comprises the river and marsh tortoises.

**Enarthrō'dia** (Gr. *en*, in ; *arthron*, a joint).—A ball and socket joint, allowing motion in every direction.

**Encēphalon** (Gr. *en*, in ; *kephalē*, the head).—The brain, including the medulla oblongata.

**Encyst'ed** (Gr. *en*, in ; *kustis*, a bladder).—Enclosed in a sac. A condition of some of the Protozoa, in which they become motionless, and invest themselves with a cyst.

**Endocar'dium** (Gr. *endon*, within ; *kardia*, the heart).—The lining membrane of the heart.

**Endochō'rion** (Gr. *endon*, within ; *chōrion*, skin).—The vascular layer of the allantois.

**En'docyst** (Gr. *endon*, within ; *kustis*, a bladder).—The inner layer of the cell in the Polyzoa.

**En'doderm** (Gr. *endon*, within ; *derma*, skin).—The inner body-wall of some invertebrate animals, developed from the hypoblast.

**Endō'genous** (Gr. *endon*, within ; *gennao*, I produce).—Applied to those plants which grow by the addition of new material internally.

**Endgnā'thal palp** (Gr. *endon*, within ; *gnathos*, a jaw).—A modification of the three terminal joints of the third thoracic appendage in the *Brachyurous Crustaceans*.

**En'dolymph** (Gr. *endon*, within ; L. *lympfa*, water).—The watery fluid in the membranous labyrinth of the ear.

**Endolymphan'gial no'dules** (Gr. *endon*, within ; L. *lympfa*, water).—Nodules occurring in the serous membranes, and containing lymph corpuscles.

**Endophlo'e'um** (Gr. *endon*, within ; *phloios*, bark).—The inner bark or liber of a tree.

**Endophrag'ma** (Gr. *endon*, within; *phragma*, a fence).—The chitinous roof of the neural canal in the thorax of some of the Crustacea.

**En'doplast** (Gr. *endon*, within; *plasma*, anything moulded or modelled).—In the Infusoria, a portion of the body which differs in chemical composition and transparency from the rest.

**Endoplas'tica** (Gr. *endon*, within; *plastikos*, well-formed).—A group of Protozoa in which a nucleus is distinguishable in the protoplasm of the body.

**Endoplas'tule** (Gr. *endon*, within; *plastikos*, well-formed).—The nucleolus of the Infusoria.

**Endopleu'rite** (Gr. *endon*, within; *pleuron*, a side, rib).—The portion of each apodeme in some of the Crustacea, which is derived from the interepimeral membrane which connects the somites.

**Endō'podite** (Gr. *endon*, within; *pous*, *pōdos*, a foot).—The internal terminal joints of the abdominal appendages in the Crustacea.

**Endorhi'zal** (Gr. *endon*, within; *rhiza*, a root).—A term applied to the germination of monocotyledonous plants, in which the rootlets spring from within the embryo.

**En'dosarc** (Gr. *endon*, within; *sarx*, flesh).—The inner layer of sarcode in the Amœba.

**En'doskeleton** (Gr. *endon*, within).—That part of the bony and cartilaginous framework of the body which is covered by the muscles and integument.

**Endos'mose** } (Gr. *endon*, within; *otheo*, I push).—The passage  
**Endosmo'sis** } of a fluid from without inwards in the process of diffusion through a membrane.

**En'dosperm** (Gr. *endon*, within; *sperma*, a seed).—The inner coat of the spore of a fern. The store of nutriment which exists in the seed for the nutriment of the embryo.

**Endospō'trium** (Gr. *endon*, within; *spōra*, a seed).—The inner layer of the coat of a *Zygospor*e.

**Endoster'nite** (Gr. *endon*, within; *sternon*, the breast).—The part of each apodeme in some of the Crustacea, which is derived from the intersternal membrane which connects the somites.

**Endos'teum** (Gr. *endon*, within; *osteon*, a bone).—A delicate layer of vascular tissue which lines the medullary canals of bone.

**Endos'toma** (Gr. *endon*, within; *stoma*, a mouth, opening).—A plate which in some Crustacea supports the labrum.

**En'dostyle** (Gr. *enidon*, within; *stulos*, a column, style).—A fold of the endoderm in the Ascidioidea, which projects into the blood cavity.

**Endothēlium** (Gr. *endon*, within; *thallo*, I bloom).—The delicate layer of epithelium which lines the blood and lymph capillaries.

**En'siform** (L. *ensis*, a sword; *forma*, form).—Sword-shaped. Applied to the cartilaginous process of the sternum.

**En'terocœle** (Gr. *enteron*, intestine; *koilē*, a hollow).—In the Invertebrata, a perivisceral cavity, or series of cavities, formed from a diverticulum of the digestive cavity.

**Enteropneu'sta** (Gr. *enteron*, an intestine; *pneuso*, I breathe).—A group of the Invertebrata having only one known representative. The branchial apertures open from branchial sacs, which are dilatations of the alimentary canal.

**Entoga'stric** (Gr. *entos*, within; *gastēr*, the stomach).—Applied to a mode of reproduction by gemmation which exists in some Hydrozoa, in which the bud grows out from the wall of the gastric cavity, and passes by it to the exterior.

**Entoglos'sal** (Gr. *entos*, within; *glōssa*, the tongue).—An ossification of the hyoidean arch which in the Teleostei supports the tongue.

**Entomōphāga** (Gr. *entoma*, insects; *phago*, I eat).—A group of the Edentata which feeds upon vegetable food only.

**Entōmos'trāca** (Gr. *entoma*, insects; *ostrakon*; a shell).—A group of minute fresh-water Crustaceans.

**Entoplas'tron** (Gr. *entos*, within; *plastos*, formed, moulded).—The median piece of the plastron in the Chelonia.

**Entoproc'ta** (Gr. *entos*, within; *prōktos*, the seat or anus).—A group of Polyzoa in which the anus lies within the circle of tentacles.

**Entopty'goid** (Gr. *entos*, within; *pteryx*, a wing; *eidos*, shape).—A bone of the skull in the Teleostean fishes.

**Entop'tic** (Gr. *entos*, within; *optikos*, optical).—A term applied to certain phenomena of vision produced by absorption and refraction within the eye.

**Entozo'a** (Gr. *entos*, within; *zoōn*, an animal).—Animals which are parasitic in the interior of other animals.

**Epencephalon** (Gr. *epi*, upon; *enkephalon*, the brain).—The hind brain, comprising the Cerebellum, Pons Varolii, and anterior part of the Fourth Ventricle.

**Epen'dyma** (Gr. *epi*, on; *enduma*, clothing).—The lining membrane of the cerebral hemispheres.

**Ehip'pium** (Gr. *ephippios*, belonging to a horse or riding).—A structure formed under some circumstances in the Ostracoda, which contains the ova, and which is developed from a "saddle-like" area of the integument.

**Ep'iblast** (Gr. *epi*, upon; *blastos*, a shoot).—The outer layer of the blastoderm.

**Epiblē'ma** (Gr. *epiblēma*, a covering).—The integument of the root of a plant.

**Epiboly** (Gr. *epibolē*, throwing on, imposition).—A condition in the development of some invertebrate ova in which the epiblast *appears* to grow over the hypoblast.

**Epibranchial** (Gr. *epi*, upon; *branchia*, a gill).—A subdivision of the branchial region of the carapace in the Brachyura.

**Epiclei'dium** (Gr. *epi*, upon; *kleis*, *kleidos*, collar-bone).—A separate ossification of the scapular end of the clavicle in most passerine birds.

**Epicœle** (Gr. *epi*, upon; *koilē*, a hollow, cavity).—A term applied to the perivisceral cavity of the Invertebrata when it is formed by invagination of the ectoderm.

**Epicō'racoïd** (Gr. *epi*, upon; *korax*, a crow).—One of the bones of the pectoral arch in some of the Vertebrata.

**Epicra'nial suture** (Gr. *epi*, upon; *kranion*, the skull; L. *sutura*, a seam).—A suture running the entire length of the epicranium in the cockroach.

**Epicra'nium** (Gr. *epi*, upon; *kranion*, the skull).—The dorsal wall of the head of a cockroach.

**Epider'mis** (Gr. *epi*, upon; *derma*, skin).—The outer non-vascular layer of the skin in animals. The external cellular covering of plants.

**Epididymis** (Gr. *epi*, upon; *dīdumos*, a testicle).—The convoluted portion of the efferent duct of the testicle.

**Epigas'tric** (Gr. *epi*, upon; *gaster*, the belly).—A term applied to two of the lobes of the carapace in the Brachyura.

**Epigas'trium** (Gr. *epi*, upon; *gaster*, the belly).—The upper region of the abdomen in man, below the sternum, and between the costal cartilages of opposite sides.

**Epiglot'tis** (Gr. *epi*, upon; *glottis*, the aperture between the vocal cords).—The cartilaginous lid which lies above the glottis.

**Epihy'al** (Gr. *epi*, upon; L. *hyoidēs*, hyoid bone).—The upper ossification of the cornua of the hyoidean arch in Teleostean fishes, represented in Human Anatomy by the stylo-hyoid ligaments.

**Epi'meron** (Gr. *epi*, upon ; *meros*, a part).—In the Crustacea, that part of the lateral wall of a somite which is situated external to the articulation of the appendage.

**Epiōtic** (Gr. *epi*, upon ; *ous*, *ōtos*, the ear).—A bone of the skull above the ear, occurring as a separate ossification in some of the Vertebrata.

**Epipharynge'al** (Gr. *epi*, upon ; *pharynx*, the throat).—The uppermost articulations of the anterior four pair of branchial arches in the osseous fishes.

**Epipharynx** (Gr. *epi*, upon ; *pharynx*, the throat).—A structure which in some *Insecta* overlaps the mouth.

**Epiphloē'um** (Gr. *epi*, upon ; *phloios*, bark).—The outer cellular layer of the bark in exogenous trees.

**Epi'physis** (Gr. *epi*, upon ; *phusis*, growth).—A part of a bone ossified from a separate supplementary centre, as found at the extremities of many long bones.

**Epi'physis cē'rēbri** (Gr. *epi*, upon ; *phusis*, growth ; L. *cērebri*, of the brain).—Another name for the pineal gland.

**Epiplas'tron** (Gr. *epi*, upon ; *plastos*, formed, moulded).—The first lateral piece of the plastron in the Chelonia.

**Epi'po'dia** (Gr. *epi*, upon ; *pous*, *pōdos*, a foot).—Lateral appendages of the foot in some Mollusca.

**Epi'pōdite** (Gr. *epi*, upon ; *pous*, *pōdos*, a foot).—An appendage of the four anterior ambulatory limbs in some Crustaceans.

**Episkē'tetal** (Gr. *epi*, upon).—A term applied to those muscles which are upon or outside the endoskeleton.

**Epister'num** (Gr. *epi*, upon ; *sternon*, the breast).—A median membrane bone, which in many Vertebrata is connected with the sternum, and is also called the interclavicle.

**Epi'sto'ma** (Gr. *epi*, upon ; *stōma*, a mouth).—The antennary sternum in some Crustacea.

**Epithē'lloid** (*epithelium* ; Gr. *eidos*, form).—A term applied to the flattened cells which line the serous membranes, the heart, and blood-vessels.

**Epithē'lium** (Gr. *epi*, upon ; *thallo*, I grow).—A term applied generally to one or more layers of cells coating any of the free surfaces of the body.

**Epizo'a** (Gr. *epi*, upon ; *zōōn*, an animal).—A group of Crustaceans which are parasitic upon other aquatic animals.

**Epōōphoron** (Gr. *epi*, upon ; *ōōn*, an egg ; *phōreo*, I bear).—In the human subject, a group of tubules lying between the Fallopian tube and ovary, and sometimes called the *parovarium*.

**Equidae** (L. *equus*, a horse).—A family of the Perissodactyla which embraces the horses and asses.

**Erectō'rēs spī'næ** (L. erectors of the spine).—A series of seven muscles in the dorsal region of the trunk.

**Er'got** (Fr. a spur).—Another name for the *hippocampus minor*.

**Erpētospondy'lia** (Gr. *erpetos*, creeping; *spondulos*, a vertebra).—Applied to those Reptilia which have the dorsal vertebrae and ribs movable.

**Eth'moid** (Gr. *ethmos*, a sieve; *eidos*, form).—One of the bones of the skull, so named because of the perforations in its cribriform plate.

**Ethmovo'merine plate.**—The anterior plate in the foetal skull, formed by the union of the trabeculæ.

**Euere'ta.**—A group of the Chelonia which comprises the turtles.

**Euno'ta.**—A group of the Lacertilia.

**Eusta'chian tube.**—A tube leading from the middle ear to the pharynx.

**Eusta'chian valve.**—A valve in the right auricle of the heart in front of the inferior vena cava.

**Exalbu'minous** (L. *ex*, without).—Applied to seeds destitute of albumen.

**Excremen'tions** (L. *excrementum*, refuse).—Fit only to be excreted.

**Excre'tion** (L. *ex*, out; *cresco*, I grow).—The removal of waste material from the body.

**Exocc'i'pital** (L. *ex*, out; *occiput*, the head).—A bone on each side of the foramen magnum of the skull; represented in Human Anatomy by the condyloid portions of the occipital bone.

**Exō'genous** (Gr. *exo*, outside; *gennao*, to produce).—Growing by addition to the exterior.

**Exō'podite** (Gr. *exo*, outside; *pous*, *pōdos*, a foot).—The external terminal joints of the typical appendage in the Crustacea.

**Exorhi'zal** (Gr. *exo*, outside; *rhiza*, a root).—A term applied to plants in which the radicle is external to the rest of the embryo.

**Exoskēleton** (Gr. *exo*, outside).—The external hard parts, as scales, nails, &c., of an animal.

**Exos'mose** { (Gr. *exo*, without; *otheo*, I push).—The passage

**Exosmō'sis** { of a fluid from within outwards in the process of diffusion through a membrane.

**Ex'osperm** (Gr. *exo*, outside; *sperma*, seed).—The outer coat of the spore of a fern.

**Expira'tion** (L. *ex*, outwards; *spiro*, I breathe).—The act of breathing out air from the lungs.

**Exten'sion** (L. *extensio*, a stretching out).—The straightening of a limb.

**Exten'sor car'pi radiā'lis brē'vis** (L. short radial extender of the carpus).—One of the muscles of the manus supplied to the third metacarpal.

**Exten'sor car'pi radiā'lis lon'gus** (L. long radial extender of the carpus).—One of the muscles of the manus supplied to the second metacarpal.

**Exten'sor car'pi ulnā'ris** (L. extender of the ulnare of the carpus).—One of the muscles of the fifth digit of the manus.

**Exten'sor commū'nis digitō'rum** (L. common extender of the digits).—One of the muscles of the manus.

**Exten'sor cru'ris brē'vis** (L. short extender of the leg).—A muscle passing from the femur to the crus.

**Exten'sor mi'nimi dī'giti** (L. extender of the little finger).—A muscle of the fifth digit of the manus.

**Exten'sor os'sis metacar'pi pol'licis** (L. extender of the metacarpal bone of the thumb).—One of the dorsal muscles of the manus.

**Exten'sor pro'prius in'dicis** (L. special extender of the index).—A muscle of the manus supplied to the index finger.

**Exten'sor pri'mi interno'dii pol'licis** (L. extender of the first internode of the thumb).—One of the muscles of the first digit of the manus.

**Exten'sor sēcun'di interno'dii** (L. extender of the second internode).—One of the muscles of the first digit.

**Ex'tine** (L. *ex*, outwards).—The external coating of a pollen grain.

## F.

**Fabel'læ** (L. little fables).—Sesamoid bones developed in the tendons of the gastrocnemius muscle of the dog.

**Fa'cial**.—Relating to the face, as the Facial (seventh) cerebral nerves which supply the face.

**Fa'ciēs** (L. appearance).—A term used to denote the broad general characteristics of the life of any region or epoch.

**Fæ'cēs** (L. dregs).—The material excreted by the bowels.

**Fal'ciform** (L. *falx*, a sickle; *forma*, form).—Sickle-shaped.

**Falx cérēbel'li** (L. *falx*, a sickle; *cérēbellum*, the lesser brain).—A process of the dura mater which intervenes between the two lateral lobes of the cerebellum.

**Falx cérēbri** (L. *falx*, a sickle; *cérēbrum*, the brain).—A process of the dura mater which extends between the cerebral hemispheres.

**Fas'cia la'ta** (L. broad fascia).—A large fascia of the thigh in the dog.

**Fas'cicle** (L. *fasciculus*, a little bundle).—A term applied to the rootlets of endogenous plants which all grow from one point.

**Fasci'culate** (L. *fasciculus*, a little bundle).—Arranged in bundles, as the rootlets of some plants.

**Fasci'culi grā'cile's** (L. slender little bundles).—A name sometimes applied to the posterior pyramids of the medulla oblongata.

**Fasci'culus** (L. a little bundle).—Applied to small bundles of nerve or muscle fibres.

**Fasci'culus ol'ivary** (L. olive-shaped little bundle).—A bundle of fibres on each side, connecting the olfactory body and anterior pyramid of the medulla oblongata.

**Fasci'culus té'res** (L. *fasciculus*, a little bundle; *tērē*, I make round by rubbing).—A bundle of fibres passing from each lateral column of the medulla to the cerebrum.

**Fasci'culus uncinā'tus** (L. little hooked bundle).—A white bundle of fibres in the cerebrum.

**Fasci'ola cinē'rea** (L. ash-coloured little bundle).—A term sometimes applied to the upper part of the fascia dentata of the cerebrum.

**Fasci'olēs** (L. *fasciola*, a little bandage).—Bands of modified spines which occur in some of the Echinidæ.

**Fau'cēs** (L. *faux*, the gullet).—The passage between the mouth and pharynx, beneath the soft palate.

**Fau'na** (L. *fauni*, rural gods).—The animal life of a region, country, or epoch.

**Fé'moral** (L. *fēmur*, the thigh).—Relating to, or lying near to, the thigh-bone, as the femoral artery, femoral vein, &c.

**Fé'moro-coccyge'us**.—A muscle passing from the caudal vertebræ to the femur in some Vertebrata.

**Fe'mur** (L. the thigh-bone).—The bone of the thigh. The third joint of the legs in the *Insecta*.

**Fénes'tra ovālis** (L. oval window).—A small oval opening in the tympanum of the ear, into which the stapes (or its representative in the lower Vertebrata) fits.

**Fēnes'tra rōtun'da** (L. round window).—A small round opening in the tympanum of the ear.

**Fēnes'trated** (L. *fenestra*, a window).—Applied to a membrane which exhibits a number of openings in its texture. Applied specially to the lining coat of the arteries first described by Henle; also to a layer of the retina.

**Fibra primiti'va** (L. primitive band).—The axis-cylinder of a white or medullated nerve fibre.

**Fibrae arcifor'mēs** (L. bow-shaped fibres).—A set of white fibres in the medulla oblongata.

**Fibrill'a** (L. a little fibre).—Applied to any small threads, such as those which make up a striped muscular fibre.

**Fibrin** (L. *fibra*, a fibre).—The fibrous substance formed in the coagulation of blood, lymph, &c.

**Fibrinogen** (Gr. *gennao*, I produce).—A substance existing in blood and elsewhere, which, with fibrinoplasticin, forms fibrin, and thus causes coagulation.

**Fibrinoplas'tin** (Gr. *plasso*, I fashion).—A substance which, in combination with fibrinogen, forms fibrin.

**Fibrospon'giæ** (L. *fibra*, a fibre; *spongia*, a sponge).—The name given to the sponges having a fibrous skeleton.

**Fibrous**.—Made up of fibres. Applied to a form of tissue which under the microscope shows a fibrous structure.

**Fibula** (L. a clasp or buckle).—The small bone of the crus or leg.

**Fibulā'rē**.—A bone of the tarsus which articulates with the fibula.

**Filiform** (L. *filum*, a thread; *forma*, shape).—Thread-shaped. Applied specially to some of the papillæ of the tongue.

**Filoplūma** (L. *filum*, a thread; *pluma*, a downy feather).—A term applied to a feather which has a long scapus and small vexillum.

**Filum termināle** (L. terminal thread).—The small filament in which the spinal cord terminates posteriorly.

**Fim'bria** (L. a fringe).—Applied to the fringe-like processes of the Fallopian tubes. Also applied generally to fringe-like processes.

**Fission** (L. *fissio*, a splitting or cleaving).—A method of non-sexual reproduction amongst the lowest organisms, in which the body of the parent spontaneously splits into two or more parts.

**Fissiparous** (L. *fissus*, cleft; *pāriō*, I bring forth).—Multiplying by division into equal parts.

**Fissipēdia** (L. *fissio*, a splitting; *pēs, pēdis*, a foot).—A division of the Carnivora which includes those carnivores which are mainly terrestrial.

**Fissū'ra palpebrā'rum** (L. fissure of the eyelids).—The interval between the angles of the eye.

**Fis'tula** (L. *findo*, I cleave, or *fistūla*, a pipe).—An abnormal opening from any internal part of the body, leading to the exterior by a kind of tube or canal.

**Flägella'ta** (L. *flägellum*, a whip).—A group of Infusoria characterized by having one or two long whip-like cilia.

**Flägel'lum** (L. a whip).—A long whip-like cilium. Also applied to an appendage of the reproductive apparatus in the snail.

**Flex'ion** (L. *flexio*, a bending).—The bending of a limb or joint.

**Flex'or car'pi radiā'lis** (L. radial bender of the carpus).—One of the muscles of the radial side of the manus.

**Flex'or car'pi ulnā'ris** (L. ulnar bender of the carpus).—One of the muscles of the ulnar side of the carpus.

**Flex'or digitō'rum per'forans** (L. perforating bender of the digits).—The name of a muscle of the manus, and also of a muscle of the pes.

**Flex'or hal'lucis lon'gus** (L. long bender of the great toe).—One of the muscles of the first digit of the pes.

**Flex'or per'forans** (L. perforating flexor).—A muscle of the manus.

**Flex'or perforā'tus** (L. perforated flexor).—A muscle of the manus.

**Flex'or pol'licis lon'gus** (L. long bender of the thumb).—A muscle supplied to the first digit of the manus.

**Flex'or tar'si ante'rior** (L. anterior flexor of the tarsus).—A muscle passing from the crus to the astragalus.

**Floc'ulus** (L. a small lock of wool).—One of the lobes of the cerebellum.

**Flo'ra** (L. the goddess of flowers).—The vegetable life of a region, country, or epoch.

**Fœ'tal** (L. *fœtus*, the unborn young).—Relating to the foetus, as the *fœtal* circulation.

**Fœ'tus** (L. *fovēo*, I nourish).—The young of an animal before birth; applied to the human infant *in utero* from the fifth month of pregnancy till birth.

**Fol'licle** (L. a little bag).—A simple tubular depression, as the glands of Lieberkühn.

**Fon'tanelle** (L. *fons*, a fountain).—A membranous interval between the bones of the skull; so called because the pulsation of the arteries may be seen at this part.

**Förā'men cæ'cum** (L. blind opening).—The termination of the anterior fissure of the medulla oblongata.

**Förā'men commū'nē ante'rius** (L. common anterior opening).—The opening by which each lateral ventricle of the brain communicates with the third ventricle, usually called the foramen of Munro.

**Förā'men lä'cērum poste'rius** (L. the posterior torn opening).—The aperture by which the ninth and tenth, and (when present,) the eleventh pairs of nerves pass out of the skull.

**Förā'men Mun'ro.**—The opening by which each lateral ventricle of the brain communicates with the third ventricle.

**Förā'men ovā'lē** (L. oval opening).—The opening by which in the foetus the right auricle of the heart communicates with the left. Also a hole in the floor of the skull by which the third division of the fifth nerve issues.

**Förā'men of Winslow.**—A passage by which the smaller sac of the peritoneum communicates with the general peritoneal cavity.

**Förā'mina incī'siva** (L. incisor openings).—Openings left between the praemaxillæ and palatine plates of the maxillary bones in the Mammalia.

**Förā'mina obturatō'ria** (L. openings to be stopped up).—Aper-tures in each of the innominate bones between the ischium and the pubes, which are closed by fibrous membrane.

**Förā'minī'fera** (L. *förāmen*, an opening; *fērō*, I bear).—A group of Protozoa, having openings in the skeleton through which the pseudopodia pass.

**For'nix** (L. an arch or vault).—A thin layer of nerve tissue in the floor of the lateral ventricles of the brain.

**Fos'sa of antihe'lix** (L. *fossa*, a ditch).—A depression in the antihelix of the external ear.

**Fos'sa duc'tus venō'si** (L. ditch of the venous duct).—The posterior part of the longitudinal fissure of the liver.

**Fos'sa of gall-bladder** (L. *fossa*, a ditch).—The depression in the liver in which the gall-bladder is lodged.

**Fos'sa of he'lix** (L. *fossa*, a ditch).—A narrow groove in the external ear, between the helix and the antihelix.

**Fos'sa innomina'ta** (L. nameless ditch).—Another name for the fossa of the helix.

**Fos'sa nāvīcūlā'ris** (L. boat-like ditch).—A dilatation of the male urethra; the space between the fourchette and the commissure in the vulva of the female.

**Fos'sa ovā'lis** (L. oval depression).—A depression in the septum of the heart which marks the position of the opening by which, during foetal life, the right side of the heart communicates with the left.

**Fos'sa scaphoi'dea** (L. boat-shaped depression).—Another name for the fossa of the helix.

**Fos'sa triangulā'ris** (L. triangular depression).—Another name for the fossa of the antihelix.

**Fos'sa of vena cava** (L. *fossa*, a ditch).—The fissure in the liver in which the vena cava lies.

**Fourchet'te** (Fr. fork).—A small fold connecting the labia of the vulva in the female.

**Fō'vea ante'rīor** (L. anterior pit).—A depression in the fourth ventricle of the brain.

**Fō'vea centrālis** (L. central pit).—A small depression in the yellow spot of the retina of the eye.

**Fō'vea hemiellip'tica** (L. semi-elliptical pit).—An oval depression in the roof of the vestibule of the ear.

**Fō'vea hemisphe'rica** (L. hemispherical pit).—A small round depression in the vestibule of the ear.

**Fō'vea ovālis** (L. oval pit).—Another name for the fossa ovalis of the heart.

**Fovil'la** (L. *fōriō*, I keep warm, cherish).—A name given to the fecundating liquor in the grains of pollen.

**Fræ'na** (L. *frēnum*, a bridle).—Applied to any connecting or restraining folds of membrane, as the fræna of the lips or of the ileo-cæcal valve.

**Fron'tal** (L. *frōns*, *frontis*, the forehead).—A bone of the skull. Relating to the region of the forehead, as the *frontal spine* projecting anteriorly from the carapace in the Crustacea.

**Frugiv'ora** (L. *frux*, *frugis*, fruit; *vōro*, I devour).—A group of the Cheiroptera, which comprises all the bats which live exclusively on fruits.

**Ful'cra** (L. *fulcrum*, a support).—Small scales or spines borne by the dorsal fins of some Ganoid fishes.

**Fun'dus** (L. the bottom or base of anything).—Applied to the base of an organ, as the fundus of the bladder or uterus.

**Fun'giform** (L. *fungus*, a mushroom; *forma*, form).—A term applied to certain papillæ of the tongue.

**Fūni'cūlus** (L. a little cord).—A term applied to the small bundles of nerve fibres of which nerves are composed. A short cord which connects the embryo of some Myriapoda with the temporary cuticula or amnion. In Botany, the cord which connects the hilum of the ovule to the placenta.

**Fur'cūlum** (L. *furca*, a fork).—The V-shaped bone in birds, formed by the union of the clavicles.

## G.

**Gălaetōphōrōus ducts** (Gr. *găla*, milk ; *phōreo*, I bear).—The ducts of the mammary gland which terminate in the nipple.

**Gă'lea** (Gr. *gălē*, a cat ; a helmet so named, because formerly made of cats' skins).—The anterior outer process of the second joint of the maxilla in the cockroach.

**Găleopithē'ci** (Gr. *gălē*, a cat ; *pithēcos*, an ape).—A group of the Insectivora.

**Gallī'næ** (L. *gallīna*, a hen).—According to the old system of classification, an order of birds which included the fowls, &c.

**Gamogen'esis** (Gr. *gămos*, marriage ; *genesis*, origin).—Sexual reproduction.

**Gan'glion** (Gr. a swelling or hard knot).—A small mass or knot of nerve tissue, made up of both nerve fibres and ganglionic corpuscles. Also applied to an encysted tumour occurring on a tendon, or aponeurosis, generally on the back of the hand or foot.

**Gan'glion im'par** (Gr. and L. ganglion without a fellow).—The lowest ganglion of the sympathetic chain.

**Gan'glion stellā'tum** (Gr. and L. star-shaped ganglion).—A large ganglion in the anterior wall of the mantle in the Cephalopoda.

**Gă'noid** (Gr. *ganos*, splendour).—A term applied to fish-scales which are composed of an inner layer of bone and an outer layer of shining enamel.

**Gănoi'dei** (Gr. *ganos*, splendour ; *eidos*, shape).—An order of fishes formerly very important, but now represented only by seven genera.

**Gastērōpōda** (Gr. *gastēr*, the belly ; *pous*, *pōdos*, a foot).—A division of the Odontophora, so called because of the ventral position of the locomotive organ.

**Gasterotri'cha** (Gr. *gastēr*, the belly; *thrix*, *trichos*, the hair).—A division of the Rotifera.

**Gas'tric** (Gr. *gastēr*, the belly, stomach).—Relating to the stomach.

**Gastrocnē'mius** (Gr. *gastēr*, the belly; *knēme*, the leg).—A muscle which forms, in part, the swelling of the calf of the leg.

**Gas'tro-co'lic omen'tum** (Gr. *gastēr*, the stomach; *kōlon*, the colon; L. *omentum*, a caul).—The fold of peritoneum which is attached to the great curvature of the stomach and transverse colon; called also the great omentum.

**Gas'tro-par'ietal band** (Gr. *gastēr*, the stomach; L. *paries*, the walls of a house).—A ligament which, in the Polyzoa and Brachiopoda, connects the gastric portion of the alimentary canal with the body-walls.

**Gas'tro-phre'nic ligament** (Gr. *gastēr*, the stomach; *phrēn*, the diaphragm).—A fold of peritoneum between the diaphragm and the cesophagus.

**Gastrophysē'ma** (Gr. *gastēr*, a stomach; *phusēma*, a bubble).—A genus of the Physemaria.

**Gas'tro-pneumo'nic** (Gr. *gastēr*, the stomach; *pneumōn*, the lungs).—A term applied to that division of the mucous membranes which lines the air passages and the alimentary canal.

**Gas'tro-sple'nic ligament** (Gr. *gastēr*, the stomach; *splēn*, the spleen).—The fold of peritoneum by which the spleen is attached to the stomach.

**Gas'trula** (Gr. diminutive of *gastēr*, a stomach).—A term applied to the invertebrate embryo after the completion of the process of invagination.

**Gavia'lidae** (*gavial*, the crocodile of the Ganges).—A group of the Crocodilia.

**Gēmel'li** (L. diminutive of *gēmīnus*, double).—A pair of muscles which connect the ischium and the femur.

**Gem'mation** (L. *gemma*, a bud).—Reproduction by budding.

**Gemmī'parous** (L. *gemma*, a bud; *pārio*, I bring forth).—Reproducing by buds.

**Gem'mule** (L. a little bud).—Applied to the ciliated embryos of some Coelenterata; also to the encysted masses of sponge particles from which new organisms are produced.

**Gē'na** (Gr. *gēnūs*, the maxilla or cheek-bone).—The part of the skeleton of the head to which the mandible of the cockroach is articulated.

**Gēn'io-hy'o-glos'sus** (prefix *genio-*; *hyoides os*, the hyoid bone; Gr. *glōssa*, the tongue).—A muscle attached to the chin, hyoid bone, and tongue.

**Gēn'io-hy'oid** (Gr. *gēnus*, the maxilla or cheek-bone).—A muscle passing from the hyoid bone to the symphysis of the mandible.

**Gē'nu** (L. knee).—The term applied to a bend in the *corpus callosum*, and to a similar bend in the optic tract of the brain.

**Geph'y'rea** (Gr. *gephūra*, a bridge).—A group of marine animals classed with the Annelida.

**Gerānomor'phæ** (Gr. *gerānos*, a crane; *morphe*, form).—The Cranes.

**Germ cell** (L. *germen*, a bud).—The cell which, after receiving the contents of the "sperm cell," produces the embryo.

**Germa'rium** (L. *germen*, a bud).—A structure in which the ova are developed in some of the Turbellaria.

**Gesta'tion** (L. *gēro*, I bear or carry).—The condition of pregnancy.

**Gige'rium**.—The muscular stomach or gizzard of birds.

**Gingī'væ** (Latin).—The gums.

**Gin'gly'form** (Gr. *ginglumos*, a hinge).—Resembling a hinge; hinge-like; applied to a joint or articulation.

**Gin'gly'mus** (Gr. *ginglumos*, a hinge).—A hinge-joint which admits of motion only in one plane.

**Gläbel'la** (L. *glāber*, smooth).—A term for the small space between the eyebrows, and immediately above a line from one to the other.

**Glabellum** (L. *glāber*, smooth).—The central raised ridge in the cephalic shield of the Trilobita.

**Gladio'lus** (L. a little sword).—A name sometimes given to the central portion of the sternum.

**Gland** (L. *glans*, an acorn).—An organ in an animal or plant which has for its function the secretion of some material, (which in animals is secreted from the blood,) either destined for further use in the economy or for immediate removal from it.

**Glan'dula lachryma'lis infe'rior** (L. little lower lachrymal gland).—A name sometimes given to the fore-part of the lachrymal gland.

**Glan'dula sōcia parō'tidis** (L. little companion gland of the parotid).—A process of the parotid salivary gland.

**Glan'dulæ agmina'tæ** (L. glands banded together).—A term applied to the clusters of Peyer's glands in the small intestine.

**Glandulæ cérumino'sæ** (L. *cérōma*, an ointment of oil and wax).—The glands which secrete the waxy material of the external ear.

**Glan'dulæ odori'feræ** (L. odoriferous glands).—Glands allied to the sebaceous glands which secrete odoriferous materials.

**Glan'dulæ Pacchiō'niæ** (L. the glands of Pacchioni).—Small oval fatty eminences found under the *dura mater*, and along the sides of the longitudinal sinus.

**Glan'dulæ solitā'riæ** (L. solitary glands).—A term applied to the isolated Peyer's glands in the small intestine.

**Glē'noid fos'sa** (Gr. *glēnē*, the pupil, a shallow depression; *eidos*, shape).—The cavity in the scapula into which the head of the humerus fits.

**Glō'bulin** (L. *glōbūlus*, a globule).—A nitrogenous substance found in several of the tissues.

**Glo'bus ma'jor** (L. larger ball).—The upper convoluted extremity or "head" of the epididymis.

**Glo'bus mi'nor** (L. smaller ball).—The lower convoluted extremity or "tail" of the epididymis.

**Glochī'dium** (Gr. *glochis*, the barb of a hook or arrow).—The young of the mussel, formerly thought to be a parasite upon the parent's gills.

**Glomē'rulus** (L. diminutive of *glōmus*, a clew of thread).—The small ball of capillaries in the Malpighian capsules of the kidney.

**Glos'so-epiglot'tic folds** (Gr. *glos'sa*, the tongue; *epi*, upon; *glottis*, the opening into the windpipe).—Three folds of mucous membrane stretching from the tongue to the epiglottis.

**Glossopharynge'al** } (Gr. *glos'sa*, the tongue; *pharunx*, the throat).

**Glossopharyn'gei** } —The ninth pair of cerebral nerves, which supply the tongue and pharynx.

**Glottis** (Gr. *glōtta*, the tongue).—The opening at the top of the larynx between the vocal cords.

**Glutæ'us mă'ximus** (Gr. *gloutos*, the buttock; L. *maximus*, greatest).—The chief extensor muscle of the hip joint.

**Glutæ'us mi'nimus** (Gr. *gloutos*, the buttock; L. *minimus*, the least).—One of the abductor muscles of the thigh.

**Glute'al** (Gr. *gloutos*, the buttock).—Applied to an artery and a nerve supplying the region of the outside of the pelvis.

**Glycochōlic acid** (Gr. *glukus*, sweet; *chōlē*, bile).—An acid obtained from bile.

**Glycogen** (Gr. *glukus*, sweet; *gennao*, I bring forth).—A substance secreted by the liver, which is readily convertible into grape-sugar or glucose.

**Glyptodon'tidae** (Gr. *gluptos*, carved; *ōdous*, *ōdontos*, a tooth).—A division of the Edentata which contains the single genus *Glyptodon*, which has its teeth deeply grooved.

**Gnă'thites** (Gr. *gnathos*, a jaw).—The antennary and masticatory appendages of the Arthropoda.

**Gnathos'tegite** (Gr. *gnathos*, a jaw; *stēgē*, a covering).—A broad plate, developed from the third thoracic appendages of the Brachyura, which forms a cover for the other organs.

**Gompho'sis** (Gr. *gomphos*, a nail).—A term sometimes applied to the articulation of the teeth in their sockets.

**Gonan'gium** (Gr. *gōnē*, seed, offspring; *angeion*, a receptacle).—A structure developed in the Hydrophora, in which the reproductive elements are produced.

**Gonapō'physes** (Gr. *gōnē*, seed; *apophuo*, to sprout).—Two pair of elongated processes developed from the eighth and ninth somites of the cockroach.

**Gonoblasti'dium** (Gr. *gōnē*, seed; *blastano*, to sprout, grow).—A structure which, in some Hydrozoa, bears upon separate branches the male and female gonophores.

**Gōn'ophore** (Gr. *gōnē*, seed; *phōrō*, I bear).—A structure in which, in the Hydrozoa, the reproductive elements are developed.

**Gră'cillus** (L. slender).—A muscle of the hind limb.

**Gral'lae** (L. stilts).—According to the old system of classification, an order of birds which included the plovers, cranes, flamingoes, and storks.

**Gră'nules** (L. diminutive of *grānum*, a grain).—Small particles found in cells, &c.

**Grap'tolite** (Gr. *grapho*, I write; *lithos*, a stone).—An extinct group of Hydrozoa.

**Gră'vid** (L. *gră'vidus*, heavy, pregnant).—Applied to the uterus when pregnant.

**Gręgar'i'nidæ** (L. *grex*, a flock).—A group of the Protozoa.

**Guard**.—The fibrous sheath which covers the phragmacone of the Belemnites.

**Gübernă'cūlum tes'tis** (L. pilot of the testicle).—The cord and serous fold which guide the testicle in its descent into the scrotum before birth.

**Gūla** (L. the throat, gullet).—A large plate which in most Insecta supports the submentum.

**Gusta'tory** (L. *gustātus*, taste).—Relating to the sense of taste. The name given to the branch of the fifth cerebral nerve which supplies the front of the tongue, and is concerned in the sense of taste.

**Gut'tural fos'sa** (L. *guttur*, the throat ; *fossa*, a ditch).—The central portion of the palate bone.

**Gymnolæ'mata** (Gr. *gumnos*, naked ; *laimos*, throat).—A division of the Polyzoa having no epistoma.

**Gymnophio'na** (Gr. *gumnos*, naked ; *ophioneos*, snaky).—A group of the Amphibia having the integument devoid of scutes, and having no limbs.

**Gymnōphthal'mata** (Gr. *gumnos*, naked ; *ophthalmos*, an eye).—The so-called naked-eyed Medusæ, the great majority of which are now known to be the free-swimming gonophores of the Hydrophora.

**Gymnosō'mata** (Gr. *gumnos*, naked ; *sōma*, *sōmatos*, a body).—Pteropods devoid of mantle and shell.

**Gymno'tini** (Gr. *gumnos*, naked ; *nōtos*, the back).—A family of Teleostean fishes.

**Gynæ'cophore** (Gr. *gunaikōn*, the women's apartment ; *phōren*, I bear).—A canal in which the male of some dioecious Trematodes carries the female.

**Gy'nophores** (Gr. *gunē*, a woman ; *phō'ren*, I bear).—The branches upon which the female gonophores are borne in some Siphonophora.

**Gy'ri oper'ti** (Gr. and L. hidden convolutions).—Another name for the central lobe, or Island of Reil, of the cerebrum.

**Gy'rūs** (Gr. *guros*, a ring).—A term applied to the convolutions of the brain.

## H.

**Habē'nula perfor'a'ta** (L. the perforated little thong).—The termination of the lamina spiralis of the cochlea of the ear.

**Hæmadynamo'meter** (Gr. *haima*, blood ; *dunamis*, power).—An instrument for measuring blood pressure.

**Hæ'mal** (Gr. *haima*, blood).—Relating to the blood system. The flexure of the intestine in the Mollusca is said to be hæmal when it turns towards that side of the body which contains the heart and chief blood-vessels.

**Hæ'matin** (Gr. *haima*, blood).—A substance obtained by the decomposition of the colouring matter of the blood.

**Hæmoglo'bin** (Gr. *haima*, blood ; L. *glōbulus*, a globule).—The colouring matter of the red corpuscles of the blood.

**Hæ'morrhage** (Gr. *haima*, blood ; *rheo*, I flow).—Bleeding from a wound.

**Hæ'morrhoi'dal** (Gr. *haima*, blood ; *rheo*, I flow).—A name given to certain small arteries and nerves of the pelvis, and to a plexus of veins in the pelvis.

**Ha'litus** (L. breath, vapour).—The vapour discharged by blood newly drawn from a living body.

**Hal'lux.**—The big toe. The first digit of the pes.

**Hä'mūlus** (L. a little hook).—The hook-like process in which the osseous lamina spiralis of the cochlea terminates.

**Hä'mūlus lachrymālis** (L. little lachrymal hook).—The pointed extremity of the lachrymal bone.

**Harmō'nia** (Gr. *harmōzo*, I fit together).—A term applied to denote an articulation, such as that of the two superior maxillary bones, in which two comparatively smooth surfaces meet.

**Haver'sian canals.**—The canals in bone which contain the blood-vessels ; so named from their discoverer Havers.

**Hectocō'tylus** (Gr. *ektos*, without ; *kotulos*, a cavity).—The modified arm in the male Cephalopoda which is used as a reproductive organ.

**He'licine arteries** (Gr. *hēlix*, a spiral).—A name given to the small curling extremities of the arteries which supply the penis.

**Hēlicotrē'ma** (Gr. *hēlix*, a spiral ; *trēma*, a hole).—The opening by which the two scalæ communicate at the summit of the cochlea of the ear.

**Heliozo'a** (Gr. *hēlios*, the sun ; *zōōn*, an animal).—A group of Rhizopods usually classed with the Radiolaria.

**He'lix** (Gr. *hēlix*, a spiral).—The elevation forming the greater part of the margin of the external ear.

**Hemiopsia** (Gr. *hemi*, half ; *ōps*, an eye).—A defect of vision in which only half an object is seen.

**Hemiplē'gia** (Gr. *hemi*, half ; *pλέσσo*, I strike).—A form of paralysis ; so named because only one side of the body is affected.

**Hemip'tera** (Gr. *hemi*, half ; *pterōn*, a wing).—A group of insects.

**Hepā'tic** (Gr. *hēpar*, *hēpatos*, the liver).—Relating to the liver, as the hepatic artery which conveys blood to the liver.

**Her'nia** (Gr. *hernos*, a branch).—The abnormal descent of part of the intestine or other viscus into the scrotum.

**Heterocer'cal** (Gr. *heteros*, different; *kerkos*, a tail).—A term applied to the tails of fishes when the lobes are unequal.

**Heteromor'phæ** (Gr. *heteros*, different; *morphe*, form).—A division of birds comprising the Hoazin.

**Heterōphagi** (Gr. *heteros*, other; *phago*, I eat).—Applied to birds, the young of which are born in a helpless condition, and require to be fed, during early life, by the parents.

**Heterōpoda** (Gr. *heteros*, different; *pous*, *pōdos*, a foot).—A group of odontophorous Mollusca.

**Heterotri'cha** (Gr. *heteros*, different; *thrix*, *trichos*, hair).—A division of the Ciliata in which the cilia vary in size.

**Hexā'merous** (Gr. *hex*, six; *meros*, a part).—Consisting of six portions.

**Hilus** (L. *hilum*, the mark on the concavity of a bean).—The concave part of a gland (as of the kidney) where the blood-vessels enter.

**Hippocam'pus ma'jor** (Gr. *hippokampos*, from *hippos*, a horse, and *kampto*, I bend, a fish with a coiled tail; L. *major*, greater).—A large white eminence in the descending cornu of each lateral ventricle of the brain.

**Hippocam'pus mi'nor** (Gr. *hippokampos*, from *hippos*, a horse, and *kampto*, I bend, a fish with a coiled tail; L. *minor*, less).—A curved eminence on the posterior cornu of each lateral ventricle of the brain.

**Hippocrē'pian** (Gr. *hippos*, a horse; *krēpis*, a boot).—A term applied to those Polyzoa having a horseshoe-shaped lophophore.

**Hirūdī'nea** (L. *hirūdo*, *hirūdīnis*, a leech).—A division of the Invertebrata which comprises the leeches.

**Histōlogy** (Gr. *histos*, a web; *logos*, a discourse).—The microscopic study of the tissues.

**Holocē'phali** (Gr. *hōlōs*, whole; *kēphalē*, the head).—A group of the Elasmobranch fishes, comprising the Chimaeræ, in which the palato-quadrate and suspensorial cartilages of the skull unite to form a continuous plate.

**Holometā'bolic** (Gr. *hōlōs*, whole; *metabolē*, change).—Applied to those insects which undergo complete metamorphosis.

**Holothurī'dea** (Gr. *hōlōs*, whole; *thuris*, *thuridos*, a little door).—A division of the Echinodermata.

**Holotricha** (Gr. *hōlōs*, whole ; *thrix, trichos*, hair).—A group of the Ciliata in which the cilia are scattered all over the body, and are of the same kind.

**Homocercal** (Gr. *homoios*, like ; *kerkos*, a tail).—A term applied to the tails of fishes when the tail lobes appear to be arranged symmetrically to the axis of the body.

**Homœosau'ria** (Gr. *homoios*, similar ; *sauros*, a lizard).—A group of extinct lizard-like animals belonging to the Lacertilia.

**Homœology** (Gr. *hōmōs*, the same ; *logos*, proportion).—Similarity in structure, as contradistinguished from similarity of function.

**Homo'typy** (Gr. *hōmōs*, the same ; *tupos*, a type or model).—A term suggested by Owen to be applied instead of *serial homology*, or the similarity of parts serially repeated in the same animal.

**Horop'ter** (Gr. *hōros*, a boundary, limit ; *opsis*, sight).—A line or surface in the field of vision, for any given position of the eyes, such that the images of the points in it all fall on corresponding points of the retina.

**Hu'mero-abdominalis**.—A muscle passing from the humerus to the abdomen in the hedgehog.

**Hu'mero-dorsal'is**.—A muscle which in the hedgehog passes from the humerus to the integument of the back.

**Hu'merus** (L. the bone of the upper part of the arm).—The bone of the upper segment of the anterior limb in the Vertebrata.

**Hu'mus** (L. soil).—Soil formed of decomposed organic material.

**Hy'aline** } (Gr. *hyalos*, crystal ; *eidos*, shape).—Clear as crystal ;  
**Hy'aloid** } applied to a variety of cartilage.

**Hy'dra** (Gr. *hudra*, a water-dragon).—The fresh-water polype belonging to the Hydrozoa.

**Hy'dranth** (Gr. *hudra*, a water-dragon ; *anthos*, a flower).—The sac in the Hydrozoa which opens at one end into the digestive cavity.

**Hydro'cium** (Gr. *hudra*, a water-dragon ; *oikos*, a dwelling).—A small chamber at the posterior end of the anterior nectocalyx in some Siphonophora.

**Hydrōphora** (Gr. *hudra*, a water-dragon ; *phōreo*, I bear).—A group of the Hydrozoa.

**Hydrophyl'lia** (Gr. *hudra*, a water-dragon ; *phullon*, a leaf).—The protective coverings of the hydranths in some Hydrozoa.

**Hydrosō'ma** (Gr. *hudra*, a water-dragon; *sōma*, a body).—The entire body of a Hydrozoon.

**Hydrothē'ca** (Gr. *hudra*, a water-dragon; *thēkē*, a repository).—The cell which in some Hydrozoa protects the hydranth.

**Hydrozo'a** (Gr. *hudra*, a water-dragon; *zōōn*, an animal).—A division of the Cœlenterata, of which the Hydra is the type.

**Hyloba'tēs** (Gr. *hulē*, a coppice; *baino*, I walk).—The Gibbons, a genus of the Anthropomorpha.

**Hy'men** (Gr. *humēn*, a membrane).—A membrane which partially closes the virgin vagina.

**Hyme'nium** (Gr. *humēn*, a membrane).—The part of a mushroom which bears the fructification.

**Hymenop'tera** (Gr. *humēn*, a membrane; *pteron*, a wing).—A group of the Insecta having scaleless wings.

**Hyoglos'sus** (Gr. *hyoidēs*, hyoid bone; *glossa*, the tongue).—The name of a muscle having its origin in the hyoid bone, and its insertion in the tongue.

**Hy'oid** (Gr. *v* (the letter *upsilon*); *eidos*, shape).—A small bone situated at the base of the tongue.

**Hyomandibular** (Gr. *hyoidēs*, hyoid bone; L. *mandible*, the lower jaw).—A term applied to the cartilage or bone which represents the proximal end of the hyoidean arch.

**Hyoplas'tron** (Gr. *plastos*, moulded).—The second lateral piece of the plastron in the Chelonia.

**Hypapō'physis** (Gr. *hupo*, under; *apophuo*, I grow from).—A process growing from the under surface of the bodies of the vertebræ in some Vertebrata.

**Hyperdiero'tie** (Gr. *huper*, over, above; *dicrōtos*, striking on both sides).—A term applied to the pulse when it is excessively dicrotic.

**Hyperpha'sia** (Gr. *huper*, over; *phasis*, speech).—Want of control over the organs of speech.

**Hy'pertrophy** (Gr. *huper*, over; *trepheo*, I nourish).—Over-nutrition. An abnormal enlargement of the whole or part of the body.

**Hy'pha** (Gr. *hyphē*, a weaving).—The name given to each of the filaments which in the fungi form the mycelium.

**Hypo'a'ria** (Gr. *hupo*, under).—A pair of small bodies on the ventral surface of the brain in fishes.

**Hy'poblast** (Gr. *hupo*, under; *blastos*, a germ).—The under layer of the blastoderm.

**Hypocho'n'drium** (Gr. *hupo*, under; *chondros*, gristle).—The upper lateral region of the abdomen which is covered by the costal cartilages.

**Hypoclei'dium** (Gr. *hupo*, under; *kleis*, *kleidos*, collar-bone).—A median process developed in some birds from the interclavicular portion of the furculum.

**Hypogas'trium** (Gr. *hupo*, under; *gaster*, the belly).—The lower mesial region of the abdomen.

**Hypoglos'sal** (Gr. *hupo*, under; *glōssa*, the tongue).—Under the tongue, as the hypoglossal (twelfth pair of) cerebral nerves.

**Hypopharynge'al** (Gr. *hupo*, under; *pharunx*, the throat).—Under the pharynx. Applied to a band of cilia beneath the pharynx in some Ascidioidea.

**Hypophā'rynx** (Gr. *hupo*, under; *pharunx*, the throat).—In some Insecta a free process of the posterior wall of the buccal cavity, (also termed the *lingua*.)

**Hypō'physis cē'rēbri** (Gr. *hupo*, under; *phuo*, I grow; L. *cerebri*, of the brain).—Another name for the pituitary body.

**Hypoplas'tron** (Gr. *hupo*, under).—The third lateral piece of the plastron in the Chelonia.

**Hypora'chis** (Gr. *hupo*, under; *rachis*, a spine, ridge).—The second vexillum or aftershaft of the feathers in some birds.

**Hyposkē'letal** (Gr. *hupo*, under).—Under the skeleton; applied to those muscles which are developed below the endoskeleton.

**Hypospa'dias** (Gr. *hupo*, under; *spao*, I draw out).—An abnormal condition of the male urethra.

**Hypotar'sus** (Gr. *hupo*, under; *tarsos*, the flat of the foot).—A process developed in most birds from the adjacent parts of the middle tarsal and metatarsal bones.

**Hypō'thenar** (Gr. *hupo*, under; *thēnar*, the palm).—Applied to the fleshy eminence at the inner border of the hand.

**Hypotri'cha** (Gr. *hupo*, under; *thrix*, *trichos*, hair).—A group of the Ciliata in which the cilia are confined to the under surface of the body.

**Hypoxan'thin** (Gr. *hupo*, under; *xanthos*, yellow).—A substance, (also named *sarkin*,) obtained from muscular tissue.

**Hypu'ral** (Gr. *hupo*, under; *oura*, the tail).—The bones which support the caudal fin-rays in fishes.

**Hyraco'i'dea** (Gr. *eidos*, shape).—A group of the Zonaria, (deciduate mammals,) represented by the single genus *Hyrax*.

**Hystricomor'phæ** (Gr. *hustrix*, *hustrichos*, a hedgehog; *morphe*, form).—A division of the Rodentia which comprises the porcupine, &c.

## I.

**Ichthyodo'rulites** (Gr. *ichthus*, a fish; *doru*, a spear).—The fossil spines or dermal defences of fishes.

**Ichthyopsi'da** (Gr. *ichthus*, a fish; *opsis*, appearance).—The division of the Vertebrata which includes the Amphibia and Fishes.

**Ichthyosau'ria** (Gr. *ichthus*, a fish; *saurus*, a lizard).—A group of extinct reptiles found in the Mesozoic rocks.

**Ileo-cæ'cal valve**.—A valve guarding the opening by which the ileum communicates with the cæcum.

**Ileo-pari'etal band** (L. *ileum*, a division of the intestine; *paries*, the walls of a house).—A ligament which in the Brachiopoda connects the intestine with the body-walls.

**Ile'um** or **Ileum** (Gr. *eilo*, or *illo*, I twist).—The third portion of the small intestine.

**Iliac**.—Relating to the region of the ilium, as the iliac arteries.

**Iliacus**.—A muscle passing from the crest of the ilium to the lesser trochanter of the femur.

**Ilio-ps'oas** (Gr. *psoa*, the loins).—A muscle arising from the ilium, and inserted into the posterior aspect of the shaft of the femur.

**Ilium** (Gr. *eileo*, I twist).—One of a pair of bones in the pelvic girdle, which in the higher Vertebrata forms the upper division of the *os innominatum*.

**Im'a'ginal disks**.—Masses of indifferent tissue carried by the larvæ of some insects when they leave the egg.

**Im'a'go** (L. an image).—The perfect form of insects.

**Im'bibi'tion** (L. *imbibere*, to drink in).—The process of absorption of fluids by organic structures.

**Im'bricated** (L. *imbrex*, a roof-tile).—Arranged so as to overlap each other like the tiles of a house.

**Impreg'nate**.—To come into contact with an ovum, so as to cause it to germinate.

**Impres'sio cō'lica** (L. impression of the colon).—A shallow impression on the under surface of the liver, which corresponds with the hepatic flexure of the colon.

**Impres'sio renalis** (L. impression of the kidney).—A shallow impression on the under surface of the liver, corresponding with the right kidney.

**Inarticula'ta** (L. *in*, not; *articulus*, a joint).—A group of the Brachiopoda in which the valves of the shell have no hinge.

**Inci'sor** (L. *incido*, I cut into).—A cutting tooth.

**Incī'sūra** (L. a notch).—A small opening or notch.

**Incī'sūra of acetā'bulum**.—A notch left in the acetabulum where the margin is incomplete.

**Incī'sūra ethmoida'lis** (L. ethmoid notch).—A small notch separating the orbital plates of the frontal bone.

**Incī'sūra intertra'gica** (L. the notch between the tragi).—The notch which separates the tragus and antitragus of the external ear.

**Incī'sūra semilunā'ris** (L. semilunar notch).—The middle of the three notches in the upper border of the sternum.

**Incuba'tion** (L. *incubatio*, a sitting upon eggs).—The process of hatching. Applied also to the germination of infectious diseases, &c.

**In'cus** (L. an anvil).—The middle of the three ossicles of the tympanum of the ear. Also the central portion of the armature of the pharynx in the Rotifera.

**In'dex** (L. the fore-finger).—Applied to the second digit of the manus.

**Indu'sium** (L. *inducere*, to clothe).—The epidermic covering of the sporangia in some ferns.

**In'fra-bran'chial** (L. *infra*, beneath; Gr. *branchia*, a gill).—Applied to the ventral division of the pallial chamber in the Lamellibranchiata, it being below the gills.

**Infraspina'tus** (L. beneath the spine).—A muscle running from the scapula to the head of the humerus.

**Infundi'bulum** (L. a funnel).—A process passing from the floor of the third ventricle of the brain to the pituitary body. Also a tubular organ in the Cephalopoda through which the water is driven from the gills. Also a chamber in the Ctenophora into which the gastric sac leads.

**Infuso'ria** (L. *in*, on; *fundo*, I pour).—A division of the Protozoa found abundantly in infusions of animal or vegetable material.

**Inglu'viēs** (L. the crop of a bird).—The crop.

**Ingu'i'nal** (L. *inguen*, the groin).—Relating to the region of the groin.

**Innervation** (L. *in*, into ; *nervus*, a nerve).—The distribution of nerves to an animal or to a region of the body.

**Insalivation** (L. *in*, in ; *saliva*, spittle).—The process of mixing the food with the saliva.

**Insectivora** (L. *voro*, I devour).—A group of mammals living mainly upon insects.

**Insertion** (L. *insertio*, an engrafting upon).—The point by which a muscle is attached to the part to be moved.

**Inses'sorēs** (L. *in*, on or in ; *ssor*, one who sits).—According to the old system of classification, an order of birds which comprised the crows, swifts, woodpeckers, and cuckoos.

**Inspiration** (L. *inspīro*, I breathe in).—The act of taking in air.

**Inspiration** (L. *spissāre*, to thicken).—The thickening of a fluid by the evaporation of moisture, as in the juices of plants.

**Integropalliate** (L. *intēger*, whole, entire ; *pallium*, a mantle).—A term applied to those Lamellibranchs which have the pallial line unbroken by notches.

**Integument** (L. *intēgumentum*, a covering).—The external protective covering of a plant or animal.

**Intercel'lular** (L. *inter*, between ; *cella*, a cell).—The spaces or material between or among cells.

**Interclavī'cula** (L. *inter*, between ; *clavicula*, the collar-bone).—A median membrane bone developed in many Vertebrata between the clavicles, (called also the episternum.)

**Intercostal** (L. *inter*, between ; *costa*, a rib).—Between the ribs, as the intercostal muscles.

**Interceru'ral** (L. *inter*, between).—A term applied to the added neural arches of the vertebrae when more than one is formed to each vertebra.

**Interlobular** (L. *inter*, between).—Between the lobules ; applied specially to the small branches of the portal vein which go between and surround the lobules of the liver.

**Interme'dium** (L. *intermedius*, intermediate).—One of the bones of the carpus, also termed *Centrale*.

**Intermesentē'ric chambers** (L. *inter*, between).—The divisions of the somatic cavity in the Actinozoa, which are between the mesenteries.

**In'ternode** (L. *inter*, between ; *nōdus*, a knot).—The interval between two successive nodes in the stem of a plant.

**Inter-ō'cular** (L. between the eyes).—The name given to a glandular body, known also as the “browspot,” on the forehead of the frog, the function of which is unknown.

**Interoper'culum** (L. *inter*, between; *operculum*, a lid).—A bone which in the Teleostean fishes lies beneath the *suboperculum*, and is connected with the hyoidean arch, and also with the angular piece of the lower jaw.

**Interos'seous** (L. *inter*, between; *os*, a bone).—One of a pair of muscles on the ventral aspect of the fifth digit of the manus.

**Interpedun'cular space**.—The lozenge-shaped area on the base of the cerebrum which is limited in front by the optic tracts, and behind by the peduncles or *crura cerebri*.

**Interspi'nous** (L. *inter*, between).—Between the spines. Applied specially to certain bones which, in the dorsal fin of Teleostean fishes, are developed between the spines of the vertebræ.

**Intertransversa'lēs** (L. *inter*, between; *transversus*, transverse, oblique).—Short muscles passing from vertebra to vertebra, between the transverse processes.

**Interver'tebral** (L. *inter*, between).—Between the vertebræ, as the intervertebral cartilages.

**Intes'tine** (L. *intestinum*, a gut).—That portion of the alimentary canal which lies between the stomach and the anus.

**In'tine** (L. *in*, within).—The inner coating of a pollen grain.

**Intralō'bular** (L. *intra*, within).—Within a lobule; specially applied to the minute veinlet occupying the centre of each lobule of the liver.

**Intrapē'talous** (L. *intrā*, within; Gr. *petalon*, a leaf).—Applied to those bands of spines which, in the Echinidea, encircle the inner terminations of the ambulacra.

**Invā'gination** (L. *in*, into; *vagina*, a sheath).—The pushing of one part of a hollow structure into another part, as may be done with the finger of a glove.

**Inver'tebrata** (L. *in*, not; *vertebra*, a joint of the backbone).—Those animals which are destitute of a skull and vertebral column.

**Involu'crum** (L. a wrapper).—A sheath which surrounds the base of the thread cells in the Siphonophora.

**Involu'tion** (L. *in*, in; *volvo*, I roll).—Rolling in. Backward growth, such as the return of the uterus to its normal condition after parturition.

**I'ris** (L. a rainbow).—The contractile curtain which is perforated by the pupil, and which forms the coloured portion of the eye.

**Ischiā'tic** (Gr. *ischion*, the hip).—Relating to the region of the hip.

**Is'chio-caudā'tis** (Gr. *ischion*, the hip; *cauda*, a tail).—A muscle which in some mammals passes from the anterior chevron bones of the tail to the *ischium*.

**Ischiō'cerite** (Gr. *ischion*, the hip; *kēras*, a horn).—The third joint of the antennæ in the Crustacea.

**Ischiō'podite** (Gr. *ischion*, the hip; *pous*, *pōdos*, a foot).—The third joint of the typical appendage in the Crustacea.

**Is'chium** (Gr. *ischion*, the hip).—One of a pair of bones in the pelvic girdle, which in man forms the lower and hinder portion of each innominate bone.

**Isō'poda** (Gr. *isos*, equal; *pous*, *pōdos*, a foot).—A group of the Edriophthalmia in which the feet are similar and equal.

**I'ter a ter'tio ad quar'tum ventrī'culum** (L. passage from the third to the fourth ventricle).—The passage by which the third and fourth ventricles of the brain communicate, commonly termed the *iter*.

## J.

**Jējū'num** (L. *jējūnus*, empty).—The second portion of the small intestine.

**Ju'gal** (L. *jūgum*, a yoke).—Another name for the malar or cheek bone.

**Jū'gular** (L. *jūgūlum*, the fore-part of the neck).—The name given to the large veins in the neck which bring the blood from the head to the superior vena cava. A term also applied to the position of the ventral fins of fishes when they are placed in front of the pectoral fins.

**Jū'gūlo-cephā'lic vein** (L. *jūgūlūm*, the fore-part of the neck; Gr. *kēphalē*, the head).—A branch sometimes uniting the jugular and cephalic veins.

## K.

**Kē'ratin** (G. *kēras*, a horn).—A nitrogenous substance entering largely into the composition of hair, nails, horn, &c.

**Kē'rato'se** (Gr. *kēras*, a horn).—A tough, horny, animal substance entering into the composition of the skeleton of sponges and other Invertebrata.

**Kinē'sodic** (Gr. *kinēsis*, motion; *ōdos*, a way).—Capable of conveying motor-nervous impulses; applied to the grey matter of the spinal cord.

**Kionocrā'nia** (Gr. *kionokrānon*, the capital of a pillar).—A division of the Lacertilia.

**Kre'atin** (Gr. *kreas*, flesh).—A soluble nitrogenous substance found in muscle.

## L.

**La'bia** (L. *lābium*, a lip).—The lips. Prolongations of the neuropodium in the Polychæta.

**La'bia majo'ra** (L. greater lips).—The outer integumentary folds of the vulva.

**La'bia mino'ra** (L. lesser lips).—The inner integumentary folds of the vulva.

**La'bium** (L. lip).—The lower lip in the Arthropoda.

**La'brum** (L. lip).—The upper lip in the Arthropoda.

**Lă'bryinth** (Gr. *laburinthos*, a maze).—The internal ear.

**Lă'bryinthodon'ta** (Gr. *laburinthos*, a maze; *odous*, *odontos*, a tooth).—A group of extinct Amphibia, so called because of the complicated structure of the teeth.

**Lăcerti'lia** (L. *lăcērtus*, a lizard).—A division of the Reptilia which includes the lizards.

**Lăcerti'na** (L. *lăcērtus*, a lizard).—A group of the Lacertilia.

**Lach'rymal** (L. *lachryma*, a tear).—Relating to the tears, as the lachrymal gland which secretes the tears. The *lachrymal bone* is the bone on each side of the face which is perforated by the duct conveying the tears from the eye to the nostrils.

**Laci'nia** (L. a lock of wool, tassel).—The posterior inner process of the stipes in the maxilla of insects.

**Lac'teal** (L. *lac*, milk).—The absorbent vessels of the small intestine, so called from their milky appearance after a meal.

**Lacti'ferous ducts** (L. *lac*, milk; *fēro*, I bear).—The main ducts of the mammary gland.

**Lacu'na** (L. a wet ditch or hollow).—A microscopic hollow in the matrix of bone, in which the bone corpuscles are deposited.

**Lagomor'pha** (Gr. *lagos*, a hare; *morphe*, form).—A group of the Rodentia which comprises the Conies.

**Lambdoi'dal su'ture** (Gr. the letter  $\Lambda$ , *lambda*; *eidos*, shape).—Another name for the occipito-parietal suture of the skull.

**Lamel'la** (L. a thin plate).—A thin layer or plate. Applied to the thin plates in the hymenium of a mushroom; also to the gills of the Lamellibranchiata.

**Lamellibranchia'ta** (L. *lamella*, a thin plate; Gr. *branchia*, a gill).—A class of the Mollusca in which the gills are composed of plate-like folds of membrane.

**Lă'mina** (L. a thin plate).—A thin layer.

**Lă'mina cině'rěa** (L. ashy layer).—A thin layer of grey nerve tissue between the optic commissure and the corpus callosum of the brain.

**Lă'mina cribro'sa** (L. sieve-like layer).—The perforated region of the sclerotic where the optic nerve enters.

**Lă'mina elastic** (L. *lămīna*, a thin plate).—A layer of the corner of the eye, immediately beneath the anterior epithelium.

**Lă'mina fūs'ca** (L. dark layer).—A delicate layer of connective tissue on the inner surface of the sclerotic.

**Lă'mina reti'cular** (L. *lămīna*, a thin plate; *reticulum*, a little net).—A delicate network of epithelial cells covering a part of the organ of Corti.

**Lă'mina spira'lis** (L. spiral plate).—The dividing bony septum of the cochlea of the ear.

**Lă'mina suprachoroi'dea** (L. the plate above the choroid).—A delicate membranous layer bounding externally the choroid coat of the eye.

**Lă'mina termina'lis** (L. terminal plate).—The layer which bounds anteriorly the third ventricle of the brain.

**Lă'minæ dorsa'lēs** (L. dorsal plates).—The folds of the vertebrate embryo which rise up by the sides of the primitive groove, and close it in to form the future neural canal.

**Lă'minæ viscerā'lēs** (L. visceral plates).—The folds of the blastoderm from which are developed the ventral body-walls and their contained organs.

**Lan'guet** (Fr. a tongue-shaped body).—A term applied to the tentacles of the Tunicata.

**Lan'u'go** (L. wool or down).—The first crop of hairs or down on the skin.

**Laryn'goscope** (Gr. *larunx*, the windpipe; *skōpeo*, I behold).—An optical instrument by which the throat and larynx may be brought into view.

**Laryn'go-trache'al**—The name given to the annular cartilage in the frog, to which the arytenoid cartilages are articulated.

**Lă'rynx** (Gr. *larunx*, the throat).—The upper part of the windpipe, extending to the lower border of the cricoid cartilage.

**Lă'teral** (L. *lătus, lăteris*, the side).—Relating to the side.

**Latis'simus dor'si** (L. broadest muscle of the back).—The largest muscle of the trunk.

**Laxa'tor tym'pani** (L. loosener or relaxer of the drum).—A small muscle which by its contraction lessens the tension of the tympanic membrane.

**Leiotri'chi** (Gr. *leios*, smooth; *thrix, trichos*, the hair).—The division of mankind which embraces the smooth-haired races.

**Lemnis'cus** (L. a fillet).—A bundle of fibres on each side of the floor of the cerebrum. Also applied to each of two oval bodies hanging from the interior walls of the body in the Acanthocephala.

**Lemu'ridæ**.—A division of the Primates which includes the lemurs, &c.

**Lemuri'ni**.—A family of the Lemuridæ.

**Lenti'cular** (L. *lenti'cula*, a lentil).—The shape of a lentil, as the lenticular glands of the stomach, and the lenticular ganglion of the fifth nerve.

**Lepă'didæ** (Gr. *lēpas*, a limpet).—A family of the Cirripedia.

**Lepidō'ptera** (Gr. *lepis, lepidos*, a scale; *pterōn*, a wing).—A group of the Insecta which comprises the butterflies and moths.

**Lepidos'teidæ** (Gr. *lēpis, lēpidos*, a scale).—A sub-order of Ganoid fishes.

**Leptocar'dia** (Gr. *leptos*, thin, small; *kardia*, the heart).—A group of the Vertebrata, proposed by Haeckel, to comprise *Amphioxus*.

**Lep'tothrix** (Gr. *leptos*, slender; *thrix*, hair).—A fine filamentous body accompanying the germination of bacteria.

**Leu'cocyte** (Gr. *leukos*, white; *kutos*, a hollow).—A term sometimes applied to the white corpuscles of the blood.

**Leucocythe'mia** (Gr. *leukos*, white; *kutos*, a hollow; *haima*, blood).—A disease in which there is a large increase in the number of white corpuscles in the blood.

**Leuco'nēs** (Gr. *leukos*, white; *kōnis*, dust).—A family of the Calcispongiae.

**Lĕvă'tor a'ni** (L. raiser of the anus).—A muscle of the anus.

**Lĕvă'tor pala'ti** (L. raiser of the palate).—A muscle of the soft palate.

**Lěvā'tor pal'pebræ superiō'ris** (L. raiser of the upper eyelid).—The muscle which by its contraction raises the upper eyelid.

**Levato'rēs an'guli scă'pulæ** (L. raisers of the corner of the scapula).—A pair of muscles passing from the upper cervical vertebræ to the scapula.

**Levato'rēs clavī'culæ** (L. raisers of the clavicle).—Muscles passing, one on each side, from the atlas to the acromion.

**Levato'rēs costā'rūm** (L. raisers of the ribs).—A series of muscles, (in the human subject twelve pairs,) passing from the transverse processes of the vertebræ to the ribs.

**Li'ber** (Latin).—The inner bark of a tree.

**Lien'culi** (L. little spleens).—Small detached nodules sometimes found in the neighbourhood of the spleen.

**Liē'no-intes'tinal** (L. *lēnīs*, the spleen).—A branch of the portal vein which, in some Vertebrata, brings the blood from the spleen and intestines.

**Lī'gament** (L. *līgo*, I bind).—A band uniting bones or other structures.

**Līgamen'ta arcua'ta** (L. the bow-shaped ligaments).—Two ligamentous arches on each side of the diaphragm.

**Līgamen'ta lā'ta** (L. broad ligaments).—Two ligaments which support the uterus.

**Līgamen'ta subfla've** (L. yellowish ligaments).—Ligaments which connect the laminae of the vertebræ.

**Līgamen'ta vaginālia** (L. ensheathing ligaments).—Strong tendinous bands of fibres which form the sheaths of the flexor tendons of the digits of the manus.

**Līgamen'tum nu'chæ** (L. ligaments of the neck).—A large sheet of connective tissue extending from the dorsal vertebræ to the occipital bones.

**Līgamen'tum tē'rēs** (L. rounded ligament).—A rounded ligament extending from the femur to the cotyloid notch of the acetabulum.

**Lig'nine** (L. *līnum*, wood).—The essential constituent of woody fibre, formed of hardened cellulose.

**Lī'gula** (L. a little tongue).—The terminal piece of the labium in the Insecta.

**Lim'bous** (L. *limbus*, a border, hem).—A term applied to such sutures as that between the *parietal* and *occipital* bones.

**Lī'nea al'ba** (L. white line).—A white fibrous structure extending from the ensiform cartilage to the pubis.

**Lī'nea as'pera** (L. rough line).—A prominent ridge on the femur.

**Lí'nea splen'dens** (L. shining line).—A fibrous band in the pia mater of the spinal cord.

**Lí'neæ semiluna'res** (L. semilunar lines).—Two curved linear spaces on the surface of the abdomen.

**Lí'neæ transver'sæ** (L. transverse lines).—Three or more lines which intersect the fibres of the rectus muscle of the abdomen.

**Lin'gua** (L. a tongue).—A median process developed from the floor of the mouth in the Insecta.

**Lin'gual** (L. *lingua*, a tongue).—Relating to the tongue, as the lingual branch of the fifth nerve.

**Lin'gula sphēnoidālis** (L. wedge-shaped tongue).—A small bony ridge in the sphenoid bone.

**Lí'quor amni'i** (L. amniotic fluid).—The fluid contained in the amniotic cavity which surrounds the embryo.

**Lí'quor sanguinis** (L. blood liquor).—The fluid part of the blood in which the corpuscles float; the blood minus its corpuscles.

**Lí'thocyst** (Gr. *lithos*, a stone; *kustis*, a bladder).—A term applied to the sacs containing mineral particles frequently found in the Medusæ, and supposed to be auditory organs.

**Lo'bate**.—Made up of lobes. Applied to the tails of fishes when the integument is continued to the bases of the fin-rays.

**Lobe** (Gr. *lobos*, the lower part of the ear).—Applied to parts of organs similarly shaped to the lobe of the ear.

**Lo'bi inferiō'res** (L. inferior lobes).—A pair of enlargements on the lower surface of the brain in some *Vertebrata*.

**Lō'bule**.—A small lobe; applied to the subdivisions of the lobes of an organ.

**Lō'bulus cauda'tus** (L. tail-like lobe).—One of the lobes of the liver.

**Lō'bulus quadra'tus** (L. square lobe).—One of the lobes of the liver.

**Lō'bulus Spigel'ii** (L. lobe of Spigelius).—One of the lobes of the liver.

**Lō'chia** (Gr. *lochis*, belonging to childbirth).—The uterine discharges which take place after parturition.

**Lō'cule** (L. a little space).—A little hollow.

**Lō'culi** (L. little spaces).—The spaces between the septa in the Actinozoa.

**Lo'cus cærnu'leus** (L. dark-blue place).—A collection of pigment in the fourth ventricle of the brain.

**Lo'cus ni'ger** (L. black place).—A layer of dark matter in each of the crura cerebri of the brain.

**Lo'cus perfora'tus anti'cus** (L. anterior perforated space).—A depression near the entrance of the Sylvian fissure of the cerebrum.

**Lo'cus perfora'tus posti'cus** (L. posterior perforated space).—A deep depression between the peduncles of the cerebrum.

**Longis'simus dor'si** (L. longest muscle of the back).—A large dorsal muscle of the trunk in the higher Vertebrata.

**Lon'gus col'li** (L. long muscle of the neck).—A muscle of the neck situate in front of the vertebral column.

**Löphobran'chii** (Gr. *löphos*, the neck; *branchia*, a gill).—A group of Teleostean fishes.

**Löphophore** (Gr. *löphos*, neck; *phōreō*, I bear).—The disc in the Polyzoa which bears the mouth.

**Löphos'teon** (Gr. *löphos*, neck; *osteon*, a bone).—The central keel-bearing ossification in the sternum of birds.

**Lorica'ta** (L. *lorica*, a cuirass, corselet).—A group of insectivorous Edentates in which the dorsal region of the body is covered by a carapace.

**Lucerna'rida** (L. *lucerna*, a lamp).—A group of Hydrozoa.

**Luette ve'sicale** (Fr. uvula of the bladder).—A slight elevation of the mucous membrane of the bladder.

**Lum'bar** (L. *lumbus*, the loin).—Relating to the region of the loins.

**Lum'bo-sa'cral plexus** (L. *lumbus*, the loin; *sacrum*).—A plexus formed in the frog by the seventh, eighth, and ninth spinal nerves.

**Lumbrical'ēs** (L. worm-shaped muscles).—Four muscles of the digits of the manus and the pes.

**Lunā're** (L. moon-shaped bone).—One of the bones of the carpus, sometimes called intermedium, also semilunare.

**Lu'nula** (L. little moon).—The white crescentic portion near the root of a nail; applied also to the thin parts of the margins of the semilunar valves of the heart.

**Lymph** (L. *lympha*, water).—The colourless fluid absorbed from the tissues by the lymphatics.

**Lymphā'tics** (L. *lympha*, water).—The special absorbent vessels distributed over the system, exclusive of those of the small intestine which are usually termed *lacteals*.

**Ly'ra** (L. a lyre).—A triangular striated portion of the corpus callosum of the brain.

## M.

**Macrauchē'nidæ** (Gr. *makrauchēn*, *makrauchēnos*, long-necked).

—An extinct family of the Perissodactyla.

**Mă'cromere** (Gr. *makros*, long; *mēros*, a part).—The larger of the two unequal masses into which the vitellus divides in the development of the Lamellibranchiata, termed by Rabl the “vegetative cell.”

**Mă'cru'ra** (Gr. *makros*, long; *oura*, tail).—A subdivision of the Podophthalmia (Crustacea), in the members of which the abdomen is largely developed.

**Mă'cula germinā'tiva** (L. germinal spot).—The nucleolus of the germinal vesicle of the ovum.

**Mă'cula lu'tēa** (L. yellow spot).—The bright spot on the retina of the eye, which is most sensitive to the action of light.

**Madrepō'ric canals.**—Tubular prolongations of the circular ambulacral vessel in the Echinodermata.

**Madrepō'ric tu'bercle.**—A convex porous plate on the aboral face of some Echinoderms.

**Madrepō'riform.**—A term applied to the *madreporic tubercle*.

**Madrepō'rite.**—Another name for the *madreporic tubercle*.

**Mălacosco'licēs** (Gr. *mălăkōs*, soft; *skōlēx*, a worm).—A division of the Invertebrata proposed by Huxley to include the Polyzoa and the Brachiopoda: the name signifies the connexion of these groups, on the one hand with the Mollusca, on the other with the Worms.

**Mălacostra'ca** (Gr. *mălăkōs*, soft).—A division of the Crustacea which includes the Podophthalmia, the Cumacea, the Edriophthalmia, and the Stomatopoda.

**Mălacozo'ic series** (Gr. *mălăkōs*, soft; *zōōn*, an animal).—A series of the Invertebrata which includes the Malacoscolices and the Mollusca.

**Mă'lar** (L. *măla*, the prominence of the cheek).—The cheek-bone.

**Malle'olar** (L. *malleōlus*, a little hammer, the ankle).—A bone in the Ruminantia which articulates below with the calcaneum, and above with the astragalus. Applied also to two small arteries distributed to this region.

**Malle'olus** (L. a little hammer).—The name given to a process of the tibia and of the fibula.

**Mal'lēus** (L. hammer).—The small bone of the middle ear which articulates on the one hand with the tympanic

membrane, on the other with the *incus*. Also the name of each lateral piece of the armature of the pharynx in the Rotifera.

**Mallōphaga** (Gr. *mallos*, lock of hair ; *phago*, I eat).—A family of insects parasitic upon mammals and birds, and which feed upon the feathers and hair.

**Malpīghian cap'sules** (L. capsules of Malpighi).—The dilated extremities of the uriniferous tubules of the kidney.

**Malpīghian corpus'cles** (L. corpuscles of Malpighi).—Rounded collections of nucleated corpuscles found in the spleen.

**Mamma'lia** (L. *mamma*, the breast).—The class of Vertebrata which includes all those animals which suckle their young.

**Mam'mary glands** (L. *mamma*, the breast).—The glands in the Mammalia which secrete milk for the nutrition of the young ; the breasts.

**Mam'millary** (L. *mamma*, the breast).—A name applied to the tubercles or *metapophyses* of the vertebræ.

**Man'dible** (L. *mando*, I chew).—In the Vertebrata, the lower jaw ; in the Arthropoda, the upper pair of jaws ; in the Cephalopoda, the beak ; in birds sometimes applied to both rostra of the beak.

**Manu'brium** (L. a handle).—The handle-shaped sac which is suspended from the centre of the disc in the Medusæ. Applied, in the Vertebrata, to the handle-like process of the malleus and of the sternum ; in Chara, the process which projects into the antheridium from each of its eight pieces.

**Ma'nus** (L. the hand).—The terminal segment of the anterior extremity, which in man forms the hand.

**Mar'ginal bones**.—The name given to certain added bones on the radial and ulnar edges of the manus in the Ichthyo-sauria.

**Mar'ginal gy'rūs**.—One of the convolutions of the brain.

**Mar'go acu'tus** (L. acute margin).—The right or lower border of the heart.

**Mar'go obtu'sus** (L. obtuse margin).—The upper or left border of the heart.

**Marsipobran'chii** (Gr. *marsipos*, a purse, bag ; *branchia*, a gill).—An order of fishes which includes the Lampreys, Hags, &c., which have pouch-like gills.

**Marsupiālia** (L. *marsupium*, a pouch).—An order of Mammalia provided with an abdominal pouch for the reception of the young, which are brought forth at a very early stage of development.

**Marsu'pium** (L. a pouch).—The abdominal pouch in the Marsupialia. Also another name for the *pecten* of the eye.

**Massē'ter** (Gr. *massaomai*, I chew).—One of the muscles of mastication, passing from the zygomatic arch to the lower jaw.

**Mas'tax** (Gr. mouth).—The muscular pharynx of the Rotifera.

**Mastication** (Gr. *masaomai*, I chew).—The process of chewing the food.

**Mas'ticator** (Gr. *masaomai*, I chew).—Engaged in mastication; applied to those organs which are engaged in chewing.

**Masti'gopods** (Gr. *mastix*, a whip; *pous*, *pōdos*, a foot).—A term applied to those *Protozoa* which possess cilia or flagella.

**Mas'toid** (Gr. *mastos*, a breast; *eidos*, shape).—Nipple-shaped. Applied to the process of the temporal bone behind the ear.

**Masto'i-do-hu'meral muscle**.—A muscle which in some Vertebrata passes from the skull to the cervical region.

**Matē'ria alimentā'ria** (L. alimentary material).—The material of the food.

**Ma'trix** (L. a womb).—The substance in which anything is embedded.

**Maxilla** (L. a jaw).—In the Arthropoda, the lower pair or pairs of jaws; in the Vertebrata applied to both upper and lower jaws, the principal bones of which are termed *inferior* and *superior-maxillary* respectively.

**Maxil'iform** (L. *maxilla*, jaw; *forma*, shape).—Jaw-like; jaw-shaped.

**Maxil'lipede** (L. *maxilla*, a jaw; *pes*, *pēdis*, a foot).—Foot-jaws. The appendages of the Crustacea which serve both for masticatory and ambulatory purposes.

**Maxillo-mandi'bular nerve**.—A division of the fifth cerebral nerve which supplies the maxilla and the mandible.

**Maxillo-tur'binal**.—Another name for the inferior turbinated bone of the face.

**Mēā'tus** (L. a way, path, passage).—A small canal; as the external auditory meatus.

**Mēā'tus audito'rius exter'nus** (L. external auditory canal).—The passage which leads from the exterior to the tympanic membrane of the ear.

**Mēā'tus urina'rius**.—The external opening of the female urethra.

**Mec'kel's car'tilage.**—The cartilage of the chondro-cranium which forms the axis of the mandible.

**Mecō'niūm** (Gr. *mēkon*, a poppy).—Poppy-juice; the faeces passed by a new-born infant.

**Mē'dian** (L. *mēdius*, middle).—Middle.

**Mēdias'tinum** (L. *mēdius*; *sto*, I stand).—A middle partition; as the mediastinum formed in the thorax by the union of the two pleuræ.

**Mēdifur'ca** (L. *mēdius*, middle; *furca*, a fork).—The middle apodemes which project into the thorax of some Insecta.

**Me'dius** (L. middle).—The third digit.

**Medul'la** (L. marrow).—The marrow of bones; the pith of a plant.

**Medul'la oblonga'ta** (L. elongated marrow).—That portion of the cerebro-spinal axis which lies between the spinal cord and the *iter* of the brain.

**Medu'sae.**—The sea-nettles or jelly-fishes, so called because their tentacles resemble the snakes which formed the hair of the Medusa, the chief of the Gorgons.

**Medu'soid** (Gr. Medusa-like).—A term applied to the zooids in the Hydrozoa which produce reproductive organs.

**Meibō'mian** (named from *Meibomius*, who first discovered them).—The name given to certain glands on the inner surface of the eyelids.

**Melā'nochroi** (Gr. *melās*, *melānos*, black; *chroia*, skin, complexion).—A group of the human race which includes the “dark-whites.”

**Membrā'na adamanti'nea** (L. adamantine membrane).—A name applied to the epithelium on the surface of the pulp of a tooth.

**Membrā'na cap'sulo-pupilla'ris** (L. capsular membrane of the pupil).—A highly vascular membrane which in the foetus surrounds the crystalline lens of the eye.

**Membrā'na ēboris** (L. ivory membrane).—The external cellular layer of the pulp of a tooth.

**Membrā'na granulō'sa** (L. granular membrane).—The lining membrane of the Graafian vesicles of the ovary.

**Membrā'na lim'itans** (L. limiting membrane).—The membrane which bounds the anterior and posterior surfaces of the retina.

**Membrā'na nic'titans** (L. winking membrane).—The third eyelid in birds, amphibia, and some mammals, formed by a fold of the conjunctiva.

**Membrā'na preforma'tiva** (L. preformed membrane).—A delicate membrane said to cover the dental pulp before the calcification of the teeth.

**Membrā'na pro'pria** (L. special membrane).—The basement membrane of secreting organs.

**Membrā'na pupillā'ris** (L. pupillary membrane).—A delicate membrane by which in the fetus the pupil is closed.

**Membrā'na saccifor'mis** (L. sac-shaped membrane).—The synovial membrane of the fore-arm.

**Membrā'na semilunā'ris** (L. semilunar membrane).—A membrane attached to the septum in the syrinx of birds.

**Membrā'na tym'pani** (L. membrane of the drum).—The membrane which closes externally the tympanum or drum of the ear.

**Membrā'na tympanifor'mis inter'na** (L. internal drum-shaped membrane).—The inner wall of that part of the bronchus of birds which forms part of the syrinx.

**Membrā'na velamento'sa** (L. covering membrane).—A membrane in the internal ear.

**Membrane cos'to-cō'racoïd.**—A layer of fascia attached superiorly to the clavicle, and inferiorly to the coracoid process and first rib.

**Menin'geal** (Gr. *mēninx*, a membrane).—Applied to certain arteries and veins of the neck.

**Mēnis'cus** (Gr. *mēniskos*, a half-moon).—A disc into which the fibro-cartilaginous rings which connect the presacral vertebrae in birds are continued.

**Men'struation** (L. *mensis*, a month).—The periodical uterine discharges.

**Men'tal forā'men** (L. *mentum*, the chin; *fōrāmen*, an opening).—An opening in the lower jaw through which the inferior dental nerve and artery pass.

**Men'to-hy'oid muscle** (L. *mentum*, the chin; Gr. *huoidēs*, hyoid bone).—An occasional muscle passing from the body of the hyoid bone to the chin.

**Men'to-Meckēlian element** (L. *mentum*, the chin).—The portion of Meckel's cartilage which ossifies to form the chin.

**Men'tum** (L. the chin).—The front median plate of the *labium* in the Insecta.

**Mēroblas'tic** (Gr. *mēros*, a part; *blastos*, a germ).—Applied to those ova of which only a part of the yolk undergoes segmentation.

**Merō'cerite** (Gr. *mēros*, the thigh ; *kēras*, a horn).—One of the joints in the antennæ of the Crustacea which represents the *meropodite* of the typical Crustacean appendage.

**Mērois'tic** (Gr. *mēros*, a part ; *ōōn*, an egg).—A term applied to the ovaries of insects when they secrete not only ova, but also vitelligenous cells.

**Mērō'podite** (Gr. *mēros*, the thigh, ham ; *pous, pōdos*, a foot).—The fourth joint of the typical appendage in the Crustacea.

**Mērostō'mata** (Gr. *mēros*, a part ; *stōma*, a mouth).—A division of the Crustacea.

**Mēsencē'phalon** (Gr. *mēsos*, middle ; *enkēphalon*, the brain).—The part of the brain which is developed from the middle cerebral vesicle of the embryo, and which comprises the corpora quadrigemina or bigemina, crura cerebri, and the iter.

**Mē'senteries** (Gr. *mēsos*, middle ; *enteron*, an intestine).—The vertical partitions which divide the space intervening between the alimentary tube and body-wall of a sea-anemone into chambers.

**Mē'sentery** (Gr. *mēsos*, middle ; *enteron*, an intestine).—The fold of the peritoneum which connects and supports the intestines.

**Me'soblast** (Gr. *mēsos*, middle ; *blastos*, a germ).—The middle layer of the blastoderm.

**Mesobran'chial** (Gr. *mēsos*, middle ; *branchia*, a gill).—A term applied to a region in the carapace of the Brachyura, which covers the mid-branchial region of the body.

**Mesocæ'cum** (Gr. *mēsos*, middle).—A fold of the peritoncum formed in some cases behind the cæcum.

**Mesocē'phalon** (Gr. *mēsos*, middle ; *kēphalē*, the head).—A name sometimes applied to the *Pons Varolii*.

**Mesocō'lon** (Gr. *mēsos*, middle).—A fold of the peritoneum behind the colon.

**Me'soderm** (Gr. *mēsos*, middle ; *derma*, skin).—The middle body-layer in some Invertebrata.

**Mesogastric** (Gr. *mēsos*, middle ; *gastēr*, the stomach).—The middle gastric lobe of the carapace in the Brachyura.

**Mesogastrium** (Gr. *mēsos*, middle ; *gastēr*, the stomach).—A membranous fold by which in the foetus the stomach is attached to the vertebral column.

**Mesono'tum** (Gr. *mēsos*, middle ; *nōtos*, back).—The tergal portion of the mesothorax in the Insecta.

**Mesophloē'um** (Gr. *mēsos*, middle ; *phloios*, bark).—The middle layer of the bark.

**Mesophrag'mal** (Gr. *mēsos*, middle; *phragma*, a partition).—Applied to the middle apophysis of each endosternite in the Crustacea.

**Mesopo'dium** (Gr. *mēsos*, middle; *pous*, *pōdos*, a foot).—The middle portion of the foot in the Gasteropoda and Pteropoda.

**Mesoptery'gial** (Gr. *mēsos*, middle; *pterux*, a wing).—The middle basal cartilage in the fin of the Elasmobranchii.

**Mesor'chium** (Gr. *mēsos*, middle; *orchis*, a testicle).—A fold of the peritoneum developed in connexion with the rudimentary testicle in the male foetus.

**Mesoreo'tum** (Gr. *mēsos*, middle).—A fold of the peritoneum by which the rectum is attached to the sacrum.

**Mesoster'num** (Gr. *mēsos*, middle; *sternon*, the chest).—The middle portion or body of the sternum.

**Mesothō'rax** (Gr. *mēsos*, middle; *thōrax*, a breastplate).—The second somite of the thorax in the Insecta.

**Mesotro'cha** (Gr. *mēsos*, middle; *trochos*, anything round, a hoop).—Larvae of the Polychæta which have the middle of the body surrounded by bands of cilia.

**Mesova'rium** (Gr. *mēsos*, middle).—A fold of the peritoneum developed in connexion with the rudimentary ovary of the female foetus.

**Metā'bola** (Gr. *metabolē*, change).—A term applied to all those insects which undergo metamorphosis.

**Metabran'chial** (Gr. *meta*, behind; *branchia*, a gill).—Applied to that lobe of the carapace in the Brachyura, which covers the hinder branchial region of the body.

**Metacar'pal** (Gr. *meta*, beyond; *karpos*, the wrist).—The name given to each bone of the *metacarpus*.

**Metacar'pus** (Gr. *meta*, beyond; *karpos*, the wrist).—The portion of the *manus* or hand which lies between the wrist and the fingers.

**Metagas'tric** (Gr. *meta*, behind; *gastēr*, the stomach).—The name applied to those two lobes of the carapace which in the Brachyura cover the hinder part of the gastric region of the body.

**Metamorpho'sis** (Gr. transformation).—The term applied to **Metamorphosis**, the series of changes which some insects undergo, whereby they successively assume three conditions, viz., those of larva, pupa, and imago.

**Metano'tum** (Gr. *meta*, behind; *notos*, the back).—The tergal portion of the metathorax in the Insecta.

**Metapo'dium** (Gr. *meta*, behind; *pous*, *pōdos*, a foot).—The posterior division of the foot in the Gasteropoda and Pteropoda.

**Metapō'physis** (Gr. *meta*, behind; *apophuo*, I sprout).—The higher of two lateral processes sometimes developed on the arches of the vertebræ.

**Metapterý'gial** (Gr. *meta*, behind; *pterux*, a wing).—The hinder basal cartilage of the fin in the Elasmobranchii.

**Metaster'nūm** (Gr. *meta*, behind; *sternon*, the chest).—The posterior portion of the sternum, sometimes termed the *Xiphisternum*, also the *ensiform cartilage*.

**Metasto'ma** (Gr. *meta*, behind; *stoma*, a mouth).—A median elevation behind the mouth in the Arthropoda.

**Metatar'sal** (Gr. *meta*, beyond; *tarsos*, sole of the foot).—The name given to each of the bones of the *metatarsus*.

**Metatar'sus** (Gr. *meta*, beyond; *tarsos*, sole of the foot).—The portion of the *pes* or foot which lies between the ankle and the toes.

**Metathō'rax** (Gr. *meta*, behind; *thōrax*, a breastplate).—The hinder segment of the thorax in the Insecta.

**Metencé'phalon** (Gr. *meta*, behind; *enkōphalon*, the brain).—The hind-brain, comprising the *medulla oblongata* and fourth ventricle.

**Methaemoglo'bin**.—A substance obtained by the decomposition of *haemoglobin*.

**Metos'teon** (Gr. *meta*, behind; *osteon*, a bone).—The posterior portion of the sternum in birds.

**Microcō'cus** (Gr. *mikros*, small; *kokkos*, a kernel or berry).—A minute organism allied to the Bacteria, having a bead-like form.

**Mi'cromere** (Gr. *mīkros*, small; *mēros*, a part).—A term applied to the smaller of the two masses into which the vitellus of the Lamellibranch ovum divides in the course of development.

**Mi'cropyle** (Gr. *mikros*, small; *pulē*, a gate, entrance).—A small opening left in some ova, by which the spermatozoa obtain access to the yolk; also the opening in the ovule of a plant through which the pollen-tube passes.

**Micturi'tion** (L. *micturire*, to desire to make water).—The act of emptying the urinary bladder.

**Mid'riff** (Sax. *midd*, middle; *hrif*, the belly).—The diaphragm.

**Mi'nimus** (L. the least).—The fifth digit of the *manus* or of the *pes*.

**Mi'tral**.—A name sometimes given to the left auriculo-ventricular valve, because of its resemblance when closed to a bishop's mitre.

**Mo'bile** (L. *mōbilis*, movable).—Capable of spontaneous movement.

**Modio'lus** (L. the nave of a wheel).—The conical column in the ear round which the cochlea turns.

**Mo'lar** (L. *mōla*, a mill).—A back tooth or grinder.

**Mollus'ca** (L. *mollis*, soft).—A division of the Invertebrata comprising the soft-bodied animals.

**Molluski'genous sacs** (*mollusca*; L. *gēro*, I bear).—Sacs attached to the intestinal walls of an Echinoderm, and from which parasitic Mollusca are developed.

**Mo'nad** (Gr. *mōnos*, one).—Any minute organism consisting only of a single cell.

**Monē'ra** (Gr. *mōnērēs*, single, solitary).—The lower of the two groups of the Protozoa.

**Monocotylēdonous** (Gr. *mōnos*, one; *kotulēdōn*, a cup-like hollow).—Applied to plants having only one cotyledon or seed-leaf to the embryo.

**Monodel'phia** (Gr. *mōnos*, one, single; *delphus*, womb).—A division of the Mammalia which includes all those animals in which the vagina is single.

**Monœ'cious** (Gr. *mōnos*, one; *oikos*, house).—Having the sexes united in one individual; applied to plants having the male and female reproductive organs on the same plant, but on different stems.

**Monotrēma'ta** (Gr. *mōnos*, single; *trēma*, an aperture).—A division of the Mammalia having a cloaca which receives the excretions of the urinary, genital, and alimentary canals.

**Mons Vene'ris** (L. mount of Venus).—The elevation, formed of adipose tissue, on the fore-part of the symphysis pubis in the female.

**Morphōlogy** (Gr. *morphē*, form; *logos*, a discourse).—The branch of Biology which deals with the structure of animals and plants.

**Mor'sus diā'boli** (L. devil's bite).—A name sometimes applied to the fimbriated extremity of the Fallopian tube.

**Mo'rula** (L. diminutive of *mōrum*, a mulberry).—The ovum when, after segmentation, it exists as an aggregation of nucleated cells.

**Mosasa'nria** (*mosa*, not satisfactorily ascertained; Gr. *sauros*, a lizard).—A group of extinct marine Lacertilia.

**Mo'tile** (L. *mōtus*, motion).—Capable of spontaneous inovement.

**Mo'tor** (L. a mover).—Causing or setting-up motion. A term applied to those nerves or nerve fibres which convey only impressions from a nerve-centre to muscles, thereby causing motion.

**Motō'res oculō'rūm** (L. movers of the eyes).—The third pair of cerebral nerves which are distributed to four out of the six muscles of each eye.

**Motō'rius o'culi** (L. mover of the eye).—Another name for each of the third pair of cerebral nerves.

**Mucilā'ginous glands**.—A name formerly applied to the fringed vascular folds of the synovial membranes.

**Mu'cin**.—The nitrogenous principle of *mucus*.

**Mu'cor** (L. mould in bread).—A species of fungus.

**Mu'cous** (L. *mucus*, the secretion of the nose).—Applied as an adjective to the membrane which lines all those parts of the body which open upon the exterior; also to any viscid secretion.

**Mu'cus** (L. the secretion of the nose).—The secretion of the mucous membranes.

**Müllē'rian duct** (named after Müller, who first described it).—A duct developed in the foetus in connexion with each Wolffian body.

**Multicus'pid** (L. *multus*, many; *cuspis*, a pointed extremity).—Having many cusps, as the molai teeth.

**Multipo'lar** (L. *multus*, many; *polus*, the pole).—Having many poles. Applied specially to those ganglionic nerve-cells which have several radiating processes.

**Mul'tivalve** (L. *multus*, many; *valvæ*, folding doors).—A term applied to those Gasteropod shells which are composed of several pieces.

**Mus'cæ volitan'tēs** (L. fluttering flies).—Floating bodies in the vitreous humour of the eye.

**Musculā'ris mucō'sæ** (L. muscular *coat* of the mucous *membrane*).—The deepest layer of the mucous membranes, formed by non-striated muscular fibre.

**Mus'culi papillā'rēs** (L. papillary muscles).—The muscular elevations in the ventricles of the heart to which the chordæ tendineæ are attached.

**Mus'culi pectina'ti** (L. comb-like muscles).—The muscular bundles which form the ridges in the auricular appendages of the heart.

**Mus'culus choano'i'dēs** (Gr. *choanē*, funnel; *eidos*, shape).—A funnel-shaped muscle which, in some reptiles and mammals, lies within the four *recti* muscles of the eye, and is attached to the posterior part of the eyeball.

**Mu'tica** (L. *mūtīlus*, wanting some principal part).—A group of insectivorous Edentata, devoid (or nearly so) of teeth.

**Mycelium** (Gr. *mukēs*, a fungus, a mushroom).—The structure formed by the interlacement of the hyphæ of fungi.

**Myelencé'phalon** (Gr. *muēlos*, marrow; *enkēphalon*, the brain).—Another term for the *medulla oblongata*.

**My'elon** (Gr. *muēlos*, marrow).—The spinal cord.

**My'eloplaques** (Gr. *muēlos*, marrow; Fr. *plaque*, plate).—Large nucleated protoplasmic masses which occur in the marrow of bones.

**My'lo-glos'sus muscle** (Gr. *mulē*, a mill; *glōssa*, the tongue).—A small occasional muscle of the lower jaw.

**My'lo-hy'oid** (Gr. *mulē*, a mill; *hyoid bone*).—The name of a muscle of the lower jaw; also of the nerve, artery, and vein supplying that muscle, and of the groove in which the nerve and blood-vessels run; also of the ridge in the lower jaw to which the mylo-hyoid muscle is attached.

**Myogrā'phion** (Gr. *mus*, a muscle; *grapho*, I write).—An instrument by which the rapidity of the passage of an impulse along a nerve is determined, by noticing the time at which a muscle contracts after application of stimuli to different parts of the nerve supplying it.

**Myolem'ma** (Gr. *mus*, a muscle; *lemma*, a husk or rind).—The sheath of a striped muscular fibre, usually termed *sarcolemma*.

**Myōlogy** (Gr. *mus*, a muscle; *lōgos*, a discourse).—The branch of Anatomy which is concerned with the structure and distribution of the muscles. The muscular system of an animal regarded as a whole.

**Myomor'pha** (Gr. *mus*, *muōs*, mouse; *morphe*, form).—A group of Rodents which comprises the rats.

**My'ōpia** } (Gr. *muōps*, short-sighted).—Short-sightedness.

**My'opy** }

**My'osin** (Gr. *mus*, a muscle).—The chief nitrogenous constituent of dead muscle, formed in the process of coagulation which takes place in *rigor mortis*.

**My'otome** (Gr. *mus*, a muscle; *temno*, I divide).—Segments of which the muscles of fishes, and probably of all vertebrate embryos, are made up.

**Myriā'poda** (Gr. *murios*, countless ; *pous*, *pōdos*, a foot).—A division of the Arthropoda which comprises the centipedes, millipedes, &c.

**Myxas'trum** (Gr. *muxa*, mucus ; *astēr*, a star).—A genus of the Monera.

**Mý'xinoid** (Gr. *myxinē*, from *muxa*, mucus, the glutinous hag).—A family of the Marsipobranchii, of which the hag is a type.

**Myx'opods** (Gr. *muxa*, mucus ; *pous*, *pōdos*, a foot).—A term applied to those Protozoa which possess pseudopodia.

**Myxospon'giae** (Gr. *muxa*, mucus ; *spongia*, a sponge).—The name given to those sponges which are devoid of a skeleton.

**Myzostō'mata** (Gr. *mus*, a muscle ; *stōma*, *stōmatos*, an opening).—A group of the Invertebrata, of which the only genus, *Myzostomum*, has a muscular proboscis which can be protruded through an aperture in the ventral face.

## N.

**Na'cre** (an Oriental word).—Mother-of-pearl.

**Na'creous**.—Pearly ; like mother-of-pearl.

**Na'rēs** (L. the nostrils).—The nostrils; *anterior nares*, the nostrils proper ; *posterior nares*, the openings of the nasal cavities into the pharynx.

**Na'sal** (L. *nāsus*, the nose).—Relating to the nose.

**Na'smyth's mem'brane**.—A very thin membrane which covers the outer surface of the enamel of unworn teeth.

**Nā'tēs** (L. the buttocks).—The anterior pair of the *corpora quadrigemina* of the brain.

**Nāvīculā'rē** or **Nāvī'cular** (L. *nāvīcula*, a small ship or boat).—One of the bones of the tarsus, and also, according to one system of nomenclature, of the carpus.

**Necro'ais** (Gr. *nekros*, a dead body).—The death of a mass of bone.

**Nectocā'lyx** (Gr. *necho*, I swim ; *kalux*, a cup).—The cup of the medusoid in the Hydrozoa ; the swimming bell of a jelly-fish.

**Nemā'tocyst** (Gr. *nēma*, thread ; *kustos*, a bladder).—The thread-cell of a Hydrozoon.

**Nematoi'dea** (Gr. *nēma*, thread ; *eidos*, shape).—A group of the Invertebrata classed by Huxley with the Nematoscolices, and which comprises the thread-worms and round-worms.

**Nematorhyn'cha** (Gr. *nῆma*, *nῆmatoς*, thread ; *rhunchos*, snout).—A proposed group of the Invertebrata, which will include the genera *Chætonotus*, *Echinoderes*, and their allies, hitherto classed with the Rotifera.

**Nēmatosco'licēs** (Gr. *nῆma*, *nῆmatoς*, thread ; *skōlēx*, a worm).—A division of Invertebrata proposed by Huxley, containing the Nematoidea and Nematorhyncha.

**Neopla'sia** (Gr. *neos*, new ; *plasis*, formation).—Growth or development of fresh material.

**Ner'vures** (L. *nervus*, a nerve, sinew).—Thickenings of the wings in some Insecta.

**Neu'ral** (Gr. *neuron*, a nerve).—Relating to the nervous system. The intestine in the Invertebrata is said to have a *neural flexure* when it bends towards that part of the body which contains the nerve-centres.

**Neurapō'physis** (Gr. *neuron*, a nerve ; *apophuo*, I sprout).—Another term for the *lamina* of the neural arch of a vertebra.

**Neurilem'ma** (Gr. *neuron*, a nerve ; *lemma*, a sheath).—The sheath of connective tissue which envelopes a nerve.

**Neu'rin** (Gr. *neuron*, a nerve).—A nitrogenous fluid obtained from the bile of some animals.

**Neu'ro-cen'tral su'ture** (Gr. *neuron*, a nerve ; L. *sutura*, a seam).—The junction between the ossification of the centrum of a vertebra and the ossifications forming the neural arches.

**Neuro'glia** (Gr. *neuron*, a nerve ; *glia*, glue).—The delicate connective tissue which forms a framework for the nervous tissue of the brain and spinal cord.

**Neurōlogy** (Gr. *neuron*, a nerve ; *lōgos*, a discourse).—The branch of Anatomy which treats of the structure and distribution of nerves and nerve-tissue.

**Neuropō'dial cir'rūs** (Gr. *neuron*, a nerve, tendon ; *pous*, *pōdos*, a foot ; L. *cirrus*, a curl of hair).—A small flexible filament attached to the *parapodium* of some Annelids.

**Neuropō'dium** (Gr. *neuron*, a nerve ; *pous*, *pōdos*, a foot).—The inferior portion of the *parapodium* in the Annelida, so called because occupying its neural aspect.

**Neuropō'tera** (Gr. *neuron*, a nerve, sinew ; *pteron*, a wing).—A group of the *Insecta* which comprises the ant-lions, caddis-flies, and scorpion-flies.

**Nic'titating mem'brane** (L. *nictatio*, winking).—A fold of the conjunctiva forming the third eyelid in birds, amphibia, and some mammals.

**Ni'damental glands** (L. *nidamentum*, the materials of a nest).—Glands which in the female Cephalopoda secrete a viscid fluid, which coats the ova, and connects them together.

**Node** (L. *nodus*, a knot).—The parts of the stem of plants from which leaves or leaf-buds spring.

**No'dule of cerebellum** (L. *nodulus*, a little knot).—The anterior termination of the inferior vermicular process.

**No'dulus Aran'tii** (L. *nodulus*, a little knot).—See *Corpus Arantii*.

**Non-decidua'ta** (L. *non*, not ; *deciduus*, falling).—A division of the Mammalia in which no *decidua* is formed.

**Non-ruminan'tia** (L. *non*, not ; *ruminō*, I chew the cud).—A division of the Artiodactyla, the members of which do not chew the cud (*rumināte*).

**Nor'ma verticālis** (L. vertical rule).—A method of measuring the capacity of the skull by a perpendicular view from above.

**No'tochord** (Gr. *nōtos*, the back ; *chordē*, a string).—The flattened cellular rod which is developed beneath the medullary groove in the embryo, called also *chorda dorsalis*.

**Nōtopo'dium** (Gr. *nōtos*, the back ; *pous, pōdos*, a foot).—The superior portion of the *parapodium* in the Annelida, so called because it occupies its dorsal aspect.

**No'tum** (Gr. *nōtos*, the back).—The tergal piece of each somite of the thorax in the Insecta.

**Nu'cha** (an unclassical word for neck).—Used to indicate the region of the neck, as the *ligamentum nucha*, which in some Vertebrata attaches the head to the spines of the vertebræ.

**Nu'chal** (*nucha*, neck).—Applied to that plate of the dorsal shield in the Chelonia, which occupies the front part of the middle line.

**Nu'cleated** (L. *nuclēus*, a kernel).—Possessing a nucleus.

**Nucle'olus** (L. a little kernel).—A dense body within the substance of a nucleus.

**Nu'cleus** (L. a kernel).—A body found in cells, and forming the central portion round which the rest of the cell contents are gathered.

**Nu'cule** (L. *nucula*, a little nut).—A term applied to the spore-fruit or female element in the fructification of Chara.

**Nudibranchia'ta** (L. *nudus*, naked ; Gr. *branchia*, a gill).—A group of the Branchiogasteropoda, destitute of a mantle.

**Nym'phæ** (Gr. *numphe*, a maiden).—Another name for the *labia interna* of the female generative organs.

## O.

**Obli'quus abdo'minis exter'nus** (L. external oblique of the abdomen).—One of the muscles of the abdomen.

**Obli'quus abdo'minis inter'nus** (L. internal oblique of the abdomen).—One of the muscles of the abdomen.

**Obli'quus că'pitis infe'rior** (L. lower oblique of the head).—One of the posterior crano-vertebral muscles.

**Obli'quus că'pitis supe'rior** (L. upper oblique of the head).—One of the posterior crano-vertebral muscles.

**Obturato'rius** (L. *obtuso*, I stop up).—Two muscles of the dorsal surface of the thigh (internal and external).

**Occi'pital** (L. *occiput*, the back of the head).—Relating to the back of the head, as the occipital bone.

**Occi'pital forā'men** (L. *occiput*, the back of the head; *fōrāmen*, an opening, window).—The opening by which, in the Insecta, the cavity of the head communicates with that of the neck.

**Occi'pita'lis muscle** (L. *occiput*, the back of the head).—A muscle of the back of the head.

**Occi'pito-fronta'les muscles**.—Muscles in the hedgehog which are attached to the occipital crest, and are inserted into the integument over the frontal and nasal bones.

**Occi'pito-mas'toid su'ture** (L. *occiput*, the back of the head; *mastoid* bone; *sutura*, a seam).—A continuation of the lambdoidal suture of the skull.

**Occi'pito-pari'etal su'ture** (L. *occiput*, the back of the head; *parietal* bone; *sutura*, a seam).—The suture which connects the occipital and parietal bones of the skull.

**Occi'pito-pari'etal sul'cus**.—The depression between the occipital and parietal lobes of the cerebrum.

**Ocel'li** (L. little eyes).—The simple eyes of the Invertebrata.

**Octo'merus** (Gr. *oktō*, eight; *mēros*, a part).—Consisting of eight parts.

**Octō'poda** (Gr. *oktō*, eight; *pous*, *pōdos*, a foot).—A group of the Cephalopoda, the members of which have eight arms.

**O'cular ten'tacle** (L. *ōculus*, eye).—The tentacle which in some Mollusca bears the eye.

**O'culo-mo'tor nerve** (L. *ōculus*, eye; *motor*, mover).—The third cerebral nerve supplied to four out of the six eye muscles.

**Odon'toblasts** (Gr. *odous*, *odontos*, a tooth; *blastos*, a germ).—Oblong cells in the pulp of a tooth.

**Odon'toid** (Gr. *odous*, *odontos*, a tooth).—Applied to the tooth-like process of the second cervical vertebra.

**Odontōphora** (Gr. *odous*, *odontos*, a tooth ; *phōreo*, I bear).—A division of the Mollusca comprising those animals which possess an *odontophore*.

**Odon'tophore** (Gr. *odous*, *odontos*, a tooth ; *phōreo*, I bear).—A strap-like masticatory organ supplied with sharp teeth found in some Mollusca.

**Œsōphagus** (Gr. *oiso*, future of *phero*, I bear ; *phagein*, to eat). The tube, leading from the pharynx, by which the food passes from the mouth to the stomach.

**Olecranon** (Gr. *ōlenē*, the elbow ; *kranion*, the top of the head).—The summit of the ulna which forms the elbow.

**Olein** (L. *olēum*, oil).—A neutral fatty substance.

**Oligochaë'ta** (Gr. *ōligos*, small ; *chaite*, hair, mane).—A division of the Invertebrata which comprises the earth-worm and the freshwater-worms.

**Olivary** (L. olive-shaped body).—Like an olive in shape, as the olivary body of the medulla oblongata, and the olivary process of the sphenoid bone.

**O'masum** (Gr. *ōmos*, raw).—The third stomach of a ruminant.

**Omen'ta** (L. *omentūm*, the caul).—Applied to certain folds of the peritoneum.

**O'mo-hy'oid** (Gr. *ōmos*, the shoulder ; *hyoid* bone).—A muscle stretching from the scapula to the hyoid bone.

**Omos'tegite** (Gr. *ōmos*, the shoulder ; *stēgo*, I cover).—The posterior division of the carapace in the Branchiopoda.

**O'moster'num** (Gr. *ōmos*, the shoulder ; *sternon*, the breast).—A median process in the Batrachia developed from the coraco-scapular cartilages.

**Ompha'lo-měsara'ic** (Gr. *omphalos*, the navel ; *mesos*, the middle).—The name given to certain arteries and veins in the foetus.

**Ompha'lo-mesentē'ric** (Gr. *omphalos*, the navel ; *mesentery*).—The name of vessels which in the foetus return blood from the walls of the umbilical vesicle.

**Oōgo'nium** (Gr. *ōōn*, an egg ; *gōnos*, seed).—The germ cell in some fungi which on impregnation becomes an oospore.

**Oos'tegites** (Gr. *ōōn*, an egg ; *stēgo*, I cover).—Plates which in some Crustacea enclose a cavity in which the eggs are hatched.

**Oper'cular** (L. *opericulum*, a lid).—Relating to the *opericulum*.  
*Opercular* gills are those attached to the hyoidean arch in some fishes.

**Oper'culum** (L. a lid).—The bony flap which covers the gills of some fishes; the disc which closes the shells of some Gasteropoda.

**Ophī'dia** (Gr. *ophis*, a snake, serpent).—An order of the Reptilia which includes the snakes.

**Ophiur'idea** (Gr. *ophis*, a serpent; *oura*, a tail).—A group of the Echinodermata comprising the brittle star-fishes.

**Ophthālmic** (Gr. *ophthalmos*, the eye).—Relating to the eye, as the *ophthalmic artery*, which supplies blood to the eye.

**Ophthāl'mite** (Gr. *ophthalmos*, the eye).—The short stalk on which each eye in the Crustacea is borne.

**Opisthobranchia'ta** (Gr. *opisthen*, behind; *branchia*, a gill).—A series of the Branchiogasteropoda.

**Opisthocœ'lus** (Gr. *opisthen*, behind; *koilos*, hollow).—A term applied to those vertebræ the centra of which are concave behind.

**Opisthoglý'phia** (Gr. *opisthen*, behind; *glupho*, I carve, engrave).—A group of the Ophidia having some of the posterior maxillary teeth grooved.

**Opisthopul'monate** (Gr. *opisthen*, behind; L. *pulmōna*, a lung).—Applied to those Pulmogasteropoda which have the pulmonary sac situated posteriorly.

**Opisthō'tic** (Gr. *opisthen*, behind; *ous, ōtos*, the ear).—An ossification of the temporal bone which surrounds the fenestra rotunda and cochlea, and which in osseous fishes persists as a separate bone.

**Opisthotō'nous** (Gr. *opisthē*, at the back; *teino*, I stretch or bend).—A variety of the disease tetanus, in which the body is bent backwards.

**Oppō'nens** (L. *oppono*, I place opposite, oppose).—A muscle attached to the ventral face of the carpus in the fore limb, and the tarsus in the hind limb, and passing to the fifth metacarpal or metatarsal.

**O'ra serr'a'ta** (L. notched border).—The anterior indented border of the retina.

**O'ral** (L. *ōs, ōris*, the mouth).—Relating to the mouth.

**Orbicula'ris ō'ris** (L. round muscle of the mouth).—One of the muscles of the mouth, also termed *sphincter oris*.

**Orbicula'ris palpebra'rum** (L. round muscle of the eyelids).—One of the muscles of the eyelids which shuts the eye.

**Orbicula'ris pannicul'i'culi** (L. *orbiculus*, a little circle; *panniculus*, a little rag).—A broad muscular band laterally encircling the body of the hedgehog.

**Or'bit** (L. *orbita*, the track in which anything rolls).—The socket of the eyeball.

**Or'bito-na'sal nerve.**—The first division of the fifth cerebral nerve, which supplies the orbit and the nose.

**Or'bito-sphē'noïd** (L. *orbita*, the orbit; Gr. *sphēn*, a wedge; *eidos*, shape).—An ossification of the skull in front of the exit of each optic nerve, known in human anatomy as the lesser wings of the sphenoid bone.

**Or'gan** (Gr. *organon*, an instrument).—A structure in a plant or animal which is appointed to perform some definite duty, which duty is termed its *function*.

**Organ'ic** (Gr. *organon*, an instrument).—Possessed of organs. Applied to those substances which are or have been living.

**Or'ganism** (Gr. *organon*, an instrument).—Any living thing, plant or animal.

**Orga'non adamanti'næ** (L. enamel organ).—A term applied to the enamel germ of teeth.

**Or'igin** (L. *örigo*, beginning, source).—Applied to that end of a muscle which is fixed during contraction, the other end of the muscle being termed its *insertion*.

**Ornithodel'phia** (Gr. *ornis*, *ornithos*, a bird; *delphus*, womb).—The lowest division of the Mammalia, which therefore approaches nearest to the Sauropsida.

**Ornithop'terous** (Gr. *ornis*, *ornithos*, a bird; *pteron*, a wing).—A genus of the Pterosauria.

**Ornithoscē'lida** (Gr. *ornis*, *ornithos*, a bird; *skelis*, *skelidos*, the haunch). A group of extinct Reptilia, intermediate in structure, (especially with regard to the pelvis,) between reptiles and birds.

**Or'thidae** (Gr. *orthios*, straight, upright).—A family of extinct Brachiopoda.

**Orthog'nathous** (Gr. *orthos*, upright; *gnathos*, a jaw).—A term applied to those skulls in which the craniofacial angle is small.

**Orthop'tera** (Gr. *orthos*, upright; *pteron*, a wing).—A division of the Insecta embracing the termites, cockroaches, grasshoppers, crickets, day-flies, dragon-flies, and earwigs.

**Os articula're** (L. articular bone).—A bone in the mandible of some Vertebrata.

**Os cal'cis** (L. the heel-bone).—Another name for the *calcaneum* or heel-bone.

**Os cen'trāle** (L. central bone).—One of the bones of the carpus, also termed *intermedium*.

**Os clo'acæ** (L. bone of the cloaca).—A bone which in some Lacertilia supports the front wall of the cloaca.

**Os cox'æ** (L. hip-bone).—Another name for the *innominate* bone of the pelvis.

**Os en ceinture** (Fr. 'girdle bone).—A peculiar cartilage bone found in the skull of the frog.

**Os innomina'tum** (L. nameless bone).—The large bone of the pelvis in the higher Vertebrata, which is formed by the coalescence of the ischium, ilium, and pubis.

**Os lin'gueæ** (L. bone of the tongue).—Another name for the hyoid bone.

**Os mag'num** (L. large bone).—One of the bones of the carpus, also termed *capitatum*.

**Os odontoide'um** (L. tooth-shaped bone).—The peg-like bone on which the head rotates, and which may be either a separate bone, or, as in the higher Vertebrata, may become ankylosed with the second vertebra.

**Os orbī'culārē or lenti'culārē** (L. orbicular or lentil-shaped bone).—The name formerly given to the tubercle of the incus which articulates with the stapes of the tympanum of the ear, and which is now regarded as part of the incus.

**Os pla'num** (L. flat bone).—Another name for the orbital plate of the ethmoid bone.

**Os pu'bis** (L. pubic bone).—A bone of the pelvis which forms in the higher Vertebrata the anterior and inferior segment of each *os innominatum*.

**Os tin'cæ** (L. tench's mouth).—The mouth of the uterus by which it opens into the vagina.

**Os u'teri exter'num** (L. exterior mouth of the womb).—The aperture by which the uterus communicates with the vagina.

**Os u'teri inter'num** (L. interior mouth of the womb).—A name sometimes applied to the constriction between the neck and body of the uterus.

**Os'cula** (L. little mouths).—The exhalent apertures of sponges.

**Osmō'sis** (Gr. *ōtheō*, I push).—The diffusion of fluids through membranes.

**Os'sa suprasterna'lia** (L. the bones above the sternum).—Two small nodules of bone sometimes found in connexion with the sternum.

**Os'sa triqué'tra** (L. triangular bones).—Small pieces of bone sometimes found between the cranial bones.

**Os'sa Worm'ii** (L. Wormian bones).—Another name for the *ossa triquetra*, also termed *ossa suturarum* (bones of the sutures).

**O'seons** (L. *os*, a bone).—Bony.

**Ossi'cula** (L. diminutive of *os*, a bone).—Certain small calcareous bone-like structures in the skeleton of the Echinodermata.

**Ossi'cula audit'us** (L. little hearing bones).—The name of the small chain of bones in the tympanum of the ear.

**Ossifica'tion** (L. *os*, a bone; *facio*, I make).—The process by which inorganic material is deposited in cartilage or membrane, thereby converting them into bone.

**Osteoblast** (Gr. *osteon*, a bone; *blastos*, a germ).—A term applied to the so-called bone corpuscles or bone cells which probably excrete the *osteogen*.

**Osteoclast** (Gr. *osteon*, a bone; *klaoo*, I break).—A term applied to the large nucleated cells which excavate pits in bony tissue in the process of absorption of bone.

**Osteoden'tine** (Gr. *osteon*, a bone; L. *dens*, *dentis*, a tooth).—A hard substance deposited in the inner surface of the dentine of teeth.

**Osteogen** (Gr. *osteon*, a bone; *gennao*, I produce).—A term applied to the soft tissue which in the formation of bone becomes ossified.

**Osteo'logy** (Gr. *osteon*, a bone; *logos*, a discourse).—The branch of Anatomy which treats specially of the structure and arrangement of the bony framework of vertebrated animals.

**Ost'ium** (L. the door of a house, entrance).—Applied to certain small openings, as the ostium or opening of the Fallopian tube into the uterus.

**Ostraco'da** (Gr. *ostrakon*, a shell).—A group of the Crustacea possessing hard shells.

**Ota'ridæ** (Gr. *ous*, *ōtos*, the ear).—A group of the Pinnipedia comprising the eared seals.

**O'tic** (Gr. *ous*, *ōtos*, the ear).—Relating to the ear. The name of one of the cerebral ganglia which lies close to the Eustachian tube of the ear.

**Otoco'nia** (Gr. *ous*, *ōtos*, the ear).—Small calcareous particles found in the fluid of the labyrinth of the ear.

**O'toliths** (Gr. *ous*, *ōtos*, the ear; *lithos*, a stone).—Frequently used in the same sense as *otoconia*, but more especially employed to denote the larger calcareous bodies found in the ears of fishes and other animals.

**Ova'rioles** (L. *ovum*, an egg).—The tubes of which the ovaries of some Insecta are composed.

**Ovary** (L. *ovum*, an egg).—A gland which in animals secretes the *ova*. In a plant, the part of the pistil which contains the *ovules*.

**Ovicella** (L. *ovum*, an egg).—Dilatations of the body-wall in the Polyzoa, in which the ova sometimes undergo the first stages of their development.

**Ovicyst** (L. *ovum*, an egg ; Gr. *kustis*, a bladder) — The pouch in which incubation takes place in some Ascidioidea.

**Oviduct** (L. *ovum*, an egg ; *dūco*, I lead).—The tube which leads from the ovary to the exterior, or from the ovary to the uterus.

**Ovigerous frænum** (L. *ovum*, an egg ; *gēro*, I bear ; *frænum*, a bridle).—A triangular process projecting from the inner wall on each side of the rudimentary abdomen in the Cirripedia.

**Oviparous** (L. *ovum*, an egg ; *pario*, I bring forth).—Applied to those animals which reproduce their kind by laying eggs, which are wholly developed into the young animal outside the body of the parent.

**Ovipōsitor** (L. *ovum*, an egg ; *positor*, one who founds, lays).—The tube along which the ova of insects pass while being deposited.

**Ovotestis** (L. *ovum*, an egg ; *testis*, a testicle).—A gland which in some Invertebrata secretes both male and female reproductive elements.

**Ovovivi'parous** (L. *ovum*, an egg ; *vivo*, I live ; *pario*, I bring forth).—Applied to those animals in which the development of the young is completed within the body of the parent, but quite unconnected with it.

**Ovula Nabothi** (L. *ovulum*, a little egg).—Small yellowish follicles in the mucous membrane of the uterus.

**Ovule** (L. *ovulum*, a little egg).—The young seed in the ovary of a plant.

**O'vum** (L. an egg).—The minute germ-cell from which, after impregnation, the young of animals are developed.

**Oxida'tion**.—The chemical union of substances with oxygen.

**Oxygen** (Gr. *oxus*, sharp, acid ; *gennao*, I produce).—A gaseous non-metallic element, existing largely in air and water, and a supporter of life and combustion ; so named because its presence was at one time erroneously supposed to be necessary for the production of an acid.

**Oxygenate**.—To charge with oxygen.

## P.

**Pachycardia** (Gr. *pachus*, thick, large ; *kardia*, the heart).—A primary group of the Vertebrata proposed by Haeckel to comprise all the vertebrated animals but *Amphioxus*.

**Palæ angulærës** (L. *pala*, a spade ; *anguläris*, having corners, angular).—A name given to a number of short plates forming part of the mouth apparatus in the Ophiuridea.

**Pälätine** (L. *pälätum*, the pallet).—The name of a pair of bones in the skull, also of certain holes (*foramina*) in those bones ; also of certain arteries and veins supplying that region ; also of one of the three main branches of the fifth pair of cerebral nerves (Trigeminal).

**Pälato-glos'sus** (Gr. *glössa*, the tongue).—A muscle passing from the soft palate to the tongue.

**Pälato-pharynge'us** (Gr. *pharunx*, the throat).—A muscle passing from the soft palate to the back of the pharynx.

**Pal'lium** (L. a cloak, mantle).—The covering which in the Mollusca covers the exterior of the body, and, where a shell is present, lines the shell.

**Pal'mæ plicâ'ta** (L. *palma*, the palm of the hand ; *plicâta*, folded).—A term applied to the appearance of the mucous lining of the vagina, caused by the two longitudinal ridges and their radiating folds.

**Palma'ria** (L. *palmâris*, a handbreadth or palm in length).—The bifurcations of the brachialia in the Crinoidea.

**Palma'ris lon'gus** (L. long [muscle] of the palm).—A muscle proceeding from the inner condyle of the humerus to the palm of the hand.

**Palmpé'dës** (L. *palma*, the palm of the hand ; *pes*, *pedis*, a foot).—According to the old system of classification, an order of birds which comprised the gulls, penguins, goose-like birds, and the cormorants.

**Palmitin** (L. *palma*, the palm tree).—A neutral fat obtained from palm oil.

**Pal'piger** (L. *palpo*, I touch).—A small piece articulated on each outer edge of the labium in some Insecta.

**Pal'pus** (L. *palpo*, I touch).—An organ of touch connected with the mouth apparatus of the Arthropoda.

**Pa'luli** (L. diminutive of *pâlus*, a stake).—A name given to certain small pillar-like bodies found between the *columella* and the *septa* in the Actinozoa.

**Pan'creas** (Gr. *pan*, all ; *kreas*, flesh).—A gland connected with the small intestine, which secretes a fluid which is employed in the process of digestion.

**Pannic'ulus adip'o'sus** (L. *panniculus*, a little rag ; *adeps*, *adipis*, full of fat).—A name given to the areolar tissue of the true skin, because it contains lobules of fat in its meshes.

**Pannic'ulus carno'sus** (L. *panniculus*, a little rag ; *carnosus*, fleshy).—A group of muscles underlying the skin, which are largely developed in most mammals.

**Panois'tic** (Gr. *pan*, all ; *ōn*, an egg).—A term applied to those ovaries of insects which secrete only *ova*, in contradistinction to those which secrete *vitelligenous cells* in addition to *ova*.

**Papil'la** (L. a nipple).—Applied generally to any minute nipple-like body, and specially to the conical elevations of the skin and mucous membranes employed in the perception of touch and taste.

**Papil'la folia'ta** (L. *papilla*, a nipple ; *fōliātus*, leafy).—An oval laminated structure found on each side of the base of the tongue in some animals.

**Papil'la lachryma'lis** (L. lachrymal papilla).—A small elevation on the margin of each eyelid, which opens into the lachrymal canal.

**Papyra'ceous** (L. made of the papyrus).—Having a paper-like texture.

**Par va'gum** (L. wandering pair).—A name given to the pneumogastric nerve on account of its wide distribution.

**Parabasa'lia** (Gr. *para*, by, near ; *basis*, a base, foundation).—The name given to the five pieces of the calyx which articulate with the basalia in some Echinodermata.

**Paradi'dymus** (Gr. *para*, near ; *didumos*, a testicle).—A structure developed in the male from the Wolffian body ; termed also the organ of Giraldès.

**Paraglo'bulin** (Gr. *para*, near ; *globulin*).—Another name for *fibrino-plastin*, a substance closely allied to globulin.

**Paraglos'sa** (Gr. *para*, beside ; *glōssa*, the tongue).—The outer terminal piece of the labium in some of the Insecta.

**Parapep'tone** (Gr. *para*, near ; *peptone*).—A proteid substance closely allied to peptone.

**Paraphrag'mal** (Gr. *para*, beside ; *phragma*, a partition).—Applied to the outer division of each endosternite in some Crustacea.

**Paraple'gia** (Gr. *para*, a numbness of parts).—Paralysis in which either the upper or lower half of the body is affected.

**Parapo'dia** (Gr. *para*, beside; *pous*, *pōdos*, a foot).—Rudimentary limbs developed in the higher Polychæta by each segment of the body.

**Parapō'physis** (Gr. *para*, beside; *apophuo*, I sprout).—The name given to the inferior transverse process of a vertebra, when two are present on each side of the centrum.

**Parasphe'noid** (Gr. *para*, beside; *sphēn*, a wedge; *eidos*, shape).—A bone which in some Vertebrata underlies the base of the skull from the basi-occipital to the presphenoidal region.

**Paraxial muscles** (Gr. *para*, near, beside).—That portion of the muscles of the trunk which lies near the axis of the body.

**Paren'chyma** (Gr. *para*, together; *encheo*, to pour in).—The cellular tissue of plants; also applied to the general cellular substance of glands.

**Pariēs** (L. a wall).—The free triangular middle portion of each piece of the shell in the Cirripedia.

**Parietal** (L. *pariēs*, *parietis*, a wall).—A name given to a pair of bones which form the middle part of the roof of the skull; also applied to those layers of the serous membranes which line the walls of the cavities in which they are placed.

**Pari'eto-mas'toid su'ture**.—The articulation of the parietal bone of the skull with the mastoid portion of the temporal bone.

**Pari'eto-splan'chnic** (L. *pariēs*, a wall; Gr. *splanchna*, the internal organs).—A name given to a nerve ganglion, which in some Mollusca supplies nerve fibres to the mantle, gills, and internal organs.

**Paro'tid** (Gr. *para*, beside; *ous*, *otos*, the ear).—The name given to a pair of salivary glands, situated one beside each ear.

**Parova'rium** (Gr. *para*, near; L. *ovarium*, ovary).—A group of tubules lying between the Fallopian tube and the ovary.

**Pars cilia'ris rétineæ** (L. ciliary part of the retina).—A thin layer of cells continued from the ora serrata of the retina to the ciliary processes.

**Parthenogē'nesis** (Gr. *parthenos*, a virgin; *genesis*, birth).—Reproduction by means of an unimpregnated germ.

**Parturi'tion** (L. *partūrio*, I bring forth, bear).—The process of bringing forth young; birth.

**Pas'serēs** (L. *passer*, *passērīs*, a sparrow).—According to the old system of classification, an order of birds which included the crows, swifts, woodpeckers, and cuckoos.

**Pata'gium** (L. a border or band on a woman's dress).—An expansion of the integument which, in the Insectivora, unites the fore limbs to the body, and extends as a web between the digits. Also a fold of the integument which in birds extends between the antebrachium, brachium, and the trunk.

**Patel'la** (L. a dish or plate).—The knee-pan.

**Patel'lidae** (L. *pātella*, a dish or plate).—The limpets, a family of the Prosobranchiata.

**Pathē'ticus**.—The name sometimes given to the fourth pair of cerebral nerves.

**Pec'ten** (L. a comb).—A vascular membrane, which in Lacer-tilia, Crocodilia, Aves, and many fishes, projects from the outer side of the globe of the eye into the vitreous humour.

**Pec'tinēs** (L. combs).—The comb-like appendages of the second somite in the Arthogastra.

**Pecti'neus** (L. *pecten*, *pectēnīs*, a comb).—A muscle passing from the pubis to the femur.

**Pec'toral** (L. *pectus*, the chest).—Belonging to the region of the chest, as the *pectoral arch*, or the *pectoral fins* of fishes, which are those attached to the pectoral arch.

**Pectora'lis ma'jor** (L. major pectoral).—One of the ventral muscles of the trunk passing from the sternum and ribs to the humerus.

**Pectora'lis mi'nor** (L. minor pectoral).—A muscle passing from the ribs to the coracoid bone or process.

**Pectostra'ca** (L. *pectus*, the breast; Gr. *ostrācon*, a shell).—A group of the Crustacea having bivalve shells.

**Pe'dal** (L. *pēs*, *pēdis*, a foot).—A term applied to certain nerve ganglia in the Mollusca, which supply fibres to the foot.

**Pē'dicel** (L. *pēdīcūlus*, a little foot).—The basal part of the horn in the Ruminantia; also the ambulacral feet in the Holothuridea.

**Pedicella'ria** (L. *pedicellus*, a louse).—Small pincer-like bodies attached to the spines of the Asteridea, and which during life are always twisting about and snapping.

**Pē'dicle** (L. *pēdīcūlus*, a little foot).—The lower portion of each side of the neural arch of a vertebra.

**Pediculi'na** (L. *pēdīcūlus*, a louse).—A group of insects commonly known as lice.

**Pēdiform** (L. *pēs, pēdis*, a foot ; *formis*, shape).—Foot-like.

**Pedipal'pi** (L. *pēs, pēdis*, a foot ; *palpo*, I touch).—The name given to the large chelate limbs in the Arthrogastera.

**Pēdun'cle** (L. *pediculus*, diminutive of *pes*, a stalk).—A stalk or stem. Applied to the muscular stalk by which the Brachiopoda are attached ; the stem by which the barnacle connects itself with wood or other objects.

**Pelargomor'phæ** (Gr. *pelargos*, a stork ; *morphe*, form).—The storks, a group of birds.

**Pel'vis** (L. a basin).—The cavity formed by the bony arch, or pelvic girdle, which gives attachment to the posterior limbs of vertebrated animals.

**Penicil'lium** (L. *penicillum*, a painter's brush).—A kind of fungus popularly known as "green mould," so named from the brush-like appearance of its aerial hyphæ.

**Pe'nis** (Latin).—The male copulatory organ.

**Pen'æ** (L. *penna*, a feather).—The contour feathers of birds.

**Pennoplū'mæ** (L. *penna*, a feather ; *pluma*, down).—A term applied to the small feathers or "down" of birds, also termed *plumulae*.

**Pentastō'mida** (Gr. *pentē*, five ; *stoma, stomatos*, a mouth, opening).—A group of parasitic Arthropoda.

**Pentodac'tyle** (Gr. *pentē*, five ; *daktylos*, a finger).—Having five digits.

**Pep'sin** (Gr. *pesso* or *pepto*, I cook, digest).—The nitrogenous essential principle of the gastric juice.

**Pep'tic** (Gr. *pesso* or *pepto*, I cook, digest).—The name sometimes given to the glands of the stomach which secrete the gastric juice. more commonly termed *gastric* glands.

**Pep'tone** (Gr. *pesso* or *pepto*, I cook, digest).—The term applied to a nitrogenous substance after it has been rendered fit for absorption by the action of the gastric juice.

**Perennibrān'chiate** (L. *perennis*, lasting, durable ; Gr. *branchia*, a gill).—Possessing durable gills. Applied to those Amphibia in which the gills persist throughout life.

**Pericar'dium** (Gr. *peri*, around ; *kardia*, the heart).—The serous sac in which the heart is enclosed. In the Crustacea, &c., the chamber which contains the heart.

**Perichon'drium** (Gr. *peri*, around ; *chondros*, gristle).—The sheath of connective tissue which covers the cartilages.

**Pericra'nium** (Gr. *peri*, around ; *kranion*, the skull).—The region around the skull.

**Perien'teron** (Gr. *peri*, around; *enteron*, the intestine).—The primitive perivisceral cavity.

**Peri'lymph** (Gr. *peri*, around; L. *lympha*, water).—The fluid which surrounds the membranous labyrinth of the ear.

**Perimy'sium** (Gr. *peri*, around; *mus*, a muscle).—The sheath of connective tissue which invests a voluntary muscle.

**Perinæ'um** (Gr. *peri*, around; *naio*, I am situated).—The partition between the opening of the intestine and the generative organs.

**Perineu'rium** (Gr. *peri*, around; *neuron*, a nerve).—A term suggested by some anatomists for use, (instead of *neurilemma*,) to signify the sheath which surrounds an entire nerve.

**Perios'teum** (Gr. *peri*, around; *osteon*, a bone).—The sheath of connective tissue which invests the bones.

**Periō'tic cap'sule** (Gr. *peri*, around; *ous*, *ōtos*, the ear).—The portion of the skull which encloses and surrounds the ear; in Human Anatomy represented by the petrous and mastoid portions of the temporal bone.

**Peripatī'dea** (Gr. *peripateo*, I walk round or about).—A group of the Arthropoda formerly classed with the Annelida.

**Peripē'talous** (Gr. *peri*, around; *pētalōn*, a leaf).—A term applied to those semitæ which surround the outer extremities of the petaloid ambulacra.

**Peripharynge'al band** (Gr. *peri*, around; *pharunx*, the throat).—A narrow band of cilia which surrounds the pharynx in some Ascidioidea.

**Peri'phery** (Gr. *peri*, around; *phēro*, I bear).—The circumference. The surrounding parts as contrasted with the centre. The terminations of nerve fibres in the organs which they supply are termed *peripheral*, as compared with their central terminations in the brain or spinal cord.

**Pē'riproct** (Gr. *peri*, around; *prōktos*, the seat or anus).—The space round the anus.

**Pē'risarc** (Gr. *peri*, around; *sark*, *sarkos*, flesh, body).—A hard chitinous cuticle which in some Hydrophora surrounds the body.

**Perissodac'tyla** (Gr. *perissos*, overmuch; *daktulos*, a finger or toe).—A division of the Ungulata, the members of which have an odd number of toes on the hind foot.

**Peristal'tic** (Gr. *peri*, around; *stello*, I dispose).—The name given to the peculiar worm-like wave motion produced in the intestines and similar bodies by the contraction of the

muscular fibres of their walls, and by which their contents are urged onwards.

**Peristeromor'phæ** (Gr. *peristera*, a pigeon; *morphe*, form).—The pigeons, a group of carinate birds.

**Pēristome** (Gr. *peri*, around; *stōma*, a mouth).—The rim which surrounds the opening of the gullet in the Vorticellæ. In the Crustacea, the space between the pterygostomial plates and the antennary sternum.

**Peristo'mium** (Gr. *peri*, around; *stōma*, a mouth).—The somite of the body which contains the mouth.

**Peritone'al sac** (Gr. *peri*, around; *teino*, I stretch).—The portion of the vaso-peritoneal vesicle which in the Holothuridea is developed into the peritoneum.

**Peritone'um** } (Gr. *peri*, around; *teino*, I stretch).—The serous **Perito'neum** } membrane which lines the abdominal cavity, and invests its viscera.

**Peritrī'cha** (Gr. *peri*, around; *thrix*, *trichos*, hair).—A group of the ciliated Infusoria, in which the cilia form a belt round the body.

**Peronæ'us brēvis** (Gr. *peronē*, the fibula; L. *brēvis*, short).—One of the ventral muscles of the fifth digit of the pes.

**Peronæ'us tertius** (Gr. *peronē*, fibula; L. *tertius*, third).—A muscle passing from the dorsal face of the fibula to the fifth metatarsal of the foot in man.

**Perene'o-calca'neus inter'nus** (Gr. *peronē*, the fibula; L. *calx*, the heel; *internus*, internal).—A small occasional muscle arising from the fibula, and inserted into the calcaneum.

**Perone'al** (Gr. *peronē*, the fibula).—A term sometimes applied to the fibula; therefore also the name given to the arteries, veins, and nerves supplying this region of the leg.

**Perospondy'lia** (Gr. *spondulos*, a vertebra).—Applied to those Reptilia which have dorsal vertebræ with double tubercles in lieu of transverse processes.

**Pes** (L. foot).—The terminal portion of the hind limb which in man forms the foot. It includes the tarsus, metatarsus, and digits.

**Pes accesso'rius** (L. *pēs*, a foot; *accessō*, an addition, increase).—A smooth eminence in the posterior cornu of each lateral ventricle of the brain.

**Pes hippocam'pi** (L. *pēs*, foot; Gr. *hippos*, a horse; *kampto*, I bend).—Another name for the hippocampus major of the brain—which see.

**Pē'tal** (Gr. *pētalon*, a leaf).—A leaf of the corolla of a flower.

**Petaloid** (Gr. *pētalōn*, a leaf; *eidos*, shape).—A term applied to the ambulacrum of the Echinidea, when it has the appearance of five petals diverging from the apex.

**Petiole** (L. *petiolus*, a stalk).—The leaf-stalk of a plant.

**Petrohy'oid muscle**.—A muscle which in the frog passes from the hyoid bone to the occipital region of the skull.

**Petro'sal** (Gr. *pētros*, a stone).—Applied to two sinuses of the dura mater which run along the petrous portion of the temporal bone; also to branches of the superior maxillary nerve.

**Petrous** (Gr. *pētros*, a stone).—Hard, stony; applied on account of its hardness to the basal part of the temporal bone in which the ear is lodged.

**Petrous gan'glion** (Gr. *pētros*, a stone).—A ganglion connected with the glossopharyngeal nerve, and lodged in a hollow in the petrous part of the temporal bone.

**Peyer's glands**.—Small ductless glands found in the small intestine, so named from the anatomist who first described them.

**Phalan'ges** (Gr. *phalanx*, a line of soldiers).—The name given to the bones of the digits, because arranged in rows. (Singular *phalanx*.)

**Phanerogā'mia** (Gr. *phaneros*, visible; *gāmos*, marriage).—A division of plants which includes the exogens and endogens, commonly termed flowering plants.

**Pharyngobran'chii** (Gr. *pharunx*, the throat; *branchia*, a gill).—An order of fishes containing only *Amphioxus*, the gills of which consist of a series of clefts in the pharynx.

**Pharyngognă'thi** (Gr. *pharunx*, the throat; *gnathos*, a jaw).—A group of Teleostean fishes.

**Pharyngopneu'sta** (Gr. *pharunx*, the throat; *pneuso*, I breathe).—A division of the Invertebrata comprising the *Tunicata* and the *Enteropneusta*, in which the respiratory apparatus consists of a series of branchial clefts in the pharynx.

**Phā'trynx** (Gr. *pharunx*, the throat).—The region of the throat behind the nose, mouth, and larynx, and above the oesophagus.

**Phō'cidæ** (Gr. *phōkē*, a seal).—A group of the *Pinnipedia* which comprises the ordinary seals.

**Phō'codon'tia** (Gr. *phōkē*, a seal; *odous*, *odontos*, a tooth).—A group of extinct *Cetacea* having molar teeth resembling those of the seals.

**Phos'phene** (Gr. *phōs*, light; *phainomai*, I appear).—An appearance of light produced by pressure on the eyeball.

**Phrag'macone** (Gr. *phragma*, a partition ; *konos*, a cone).—The conical part of the internal shell of a belemnite, which is divided into chambers by partitions.

**Phre'nic** (Gr. *phrēn*, the diaphragm).—Relating to the diaphragm, as the *phrenic nerve*, which is supplied by the spinal cord to the diaphragm.

**Phylactolæ'mata** (Gr. *phulakteous*, guarded; *laimos*, the throat).—The division of the Polyzoa, the members of which possess an epistoma and a horseshoe-shaped lophophore.

**Phylō'geny** (Gr. *phulon*, tribe, species; *gēnos*, lineage).—A branch of Biology which attempts to gather the ancestral history of an animal from its development.

**Physema'ria** (Gr. *phusēma*, a bubble; L. *marē*, the sea).—A group of low marine Metazoa.

**Physiōlogy** (Gr. *phusis*, nature; *logos*, a discourse).—The science which treats of the various operations which take place in living beings, and which constitute life.

**Physō'poda** (Gr. *phusa*, wind; *pous*, *pōdos*, a foot).—A group of small winged insects which live mostly in plants.

**Physō'tomi** (Gr. *phusiao*, I inflate).—A group of Teleostean fishes in which an air-bladder is nearly always present.

**Phytō'phaga** (Gr. *phuton*, a plant; *phago*, I eat).—A division of the Edentata which comprises all the vegetable-feeding forms.

**Pi'a mā'ter** (L. tender mother).—The delicate, highly vascular membrane which forms the innermost of the three coverings of the brain and spinal cord.

**Pilī'dium** (Gr. *pilidion*, a small felt hat).—A helmet-shaped body in which the larva of the Nemertidæ is developed, and which is subsequently cast off.

**Pinē'al gland** (L. *pinæa*, a pine).—A glandular body connected with the roof of the third ventricle of the brain, the function of which is at present unknown.

**Pin'na** (L. a fin or pinion).—The expanded portion of the external ear; also the primary divisions of a fern frond.

**Pinnipē'dia** (L. *pinna*, a fin; *pēs*, *pēdis*, a foot).—A division of the Carnivora which comprises the seals and walruses.

**Pin'nule** (L. *pinnula*, a little feather).—The small lobes or leaflets of the frond of a fern, or of the leaf of any other plant similarly divided. Also each radiating process of the arms of a Crinoid.

**Pis'cēs** (L. *piscis*, a fish).—The class of the Vertebrata which includes the fishes.

**Pi'siform** (L. *pisum*, a pea ; *forma*, shape).—A small bone on the ulnar side of the carpus in the Mammalia, which is developed in the tendon of the flexor muscle of that side.

**Pis'til** (L. *pistillum*, a pestle).—The central, female organ of a flower composed of one or more carpels.

**Pithē'cus** (Gr. *pithekos*, an ape).—A genus of the Anthropomorpha.

**Pitu'itary body** (L. *pituita*, phlegm).—A small body on the floor of the skull, and connected with the third ventricle of the brain by the infundibulum.

**Placen'ta** (L. a cake).—The structure, commonly known as the "after-birth," formed in some mammals from the chorion of the foetus and the decidua of the uterus, and which is cast off in parturition.

**Placoder'mi** (Gr. *plax*, a plate ; *derma*, skin).—A sub-order of Ganoid fishes.

**Plā'coid** (Gr. *plax*, a plate ; *eidos*, form).—Applied to such scales as those of sharks and rays, which consist of irregular bony plates, sometimes armed with spines.

**Plagios'tomi** (Gr. *plagios*, sideways; *stoma*, *stomatos*, an opening).—A group of Elasmobranch fishes which embraces the sharks and rays, so named because in the sharks the gill-clefts are on the sides of the body.

**Plana'rida** (Gr. *planē*, wandering).—A group of Turbellaria.

**Pla'niform** (L. *plānum*, a level place ; *forma*, shape).—Applied to a joint having nearly flat surfaces ; also termed an *arthrodia*.

**Plan'tar** (L. *plantāris*, of or relating to the sole of the foot).—Applied to that surface of the foot which corresponds to the palm of the hand.

**Planta'ris** (L. relating to the sole of the foot).—A muscle passing from the femur to the calcaneum.

**Plan'tigrade** (L. *planta*, the sole of the foot ; *grādus*, a step).—Walking upon the soles of the feet.

**Pla'num tempora'lē** (L. temporal plane).—A flat surface in the skull, forming part of the temporal fossa.

**Plas'ma** (Gr. *plasma*, a thing modelled).—Applied to material from which organic structures are formed, and in which they float, as the *plasma* of blood.

**Plas'mine** (Gr. *plasma*, a thing modelled).—A coagulable substance closely allied to fibrin, obtained from blood plasma.

**Plas'tron** (Gr. *plastos*, formed, moulded).—The ventral exoskeleton of the Chelonia.

**Platynō'ta** (Gr. *platunōtos*, broad-backed).—A group of the Lacertilia.

**Plātyrrhī'ni** (Gr. *plātus*, broad ; *rhis*, *rhinos*, the nose).—A family of the Simiadæ having remarkably wide and flat noses.

**Platys'ma myoi'dēs** (Gr. *platusma*, a plate ; *mus*, a muscle, *eidos*, shape).—A thin flat muscle of the neck.

**Plectō'gnathi** (Gr. *plektos*, plaited, twisted ; *gnathos*, a jaw).—A group of Teleostean fishes which have the premaxillæ, and usually the hyomandibular, immovably united with the skull.

**Plesiosau'ria** (Gr. *plesios*, near ; *saurios*, a lizard).—A group of extinct Reptilia.

**Pleu'ra** (Gr. *pleura*, a rib).—The serous membrane which lines the thorax and envelopes the lungs.

**Pleu'ra costal'is** (L. *costa*, a rib).—The layer of the pleura which lines the thorax.

**Pleu'ra pulmona'lis** (L. *pulmo*, *pulmōnis*, a lung).—The layer of the pleura which invests the lungs.

**Pleu'ral facet'.**—The smooth surface on the anterior surface of the pleuron of each somite in the Crustacea.

**Pleu'rodont** (Gr. *pleuron*, a side ; *odous*, *odontos*, a tooth).—Applied to the dentition of the Lacertilia, when the teeth are ankylosed by their sides to the parapet of the jaw.

**Pleuronec'tidae** (Gr. *pleuron*, a side ; *nēktos*, swimming).—The flat fishes ; so called because they swim on their side.

**Pleuroperitone'al** (Gr. *pleuron*, a side ; *peri*, around ; *teino*, I stretch).—The general cavity of the trunk when undivided by a diaphragm.

**Pleurospondy'lia** (Gr. *pleuron*, a rib ; *spondulos*, a vertebra).—Applied to the Reptilia in which the ribs are not movable upon the vertebræ.

**Pleuros'teon** (Gr. *pleuron*, a side ; *osteon*, a bone).—The antero-lateral piece of the sternum in birds.

**Plex'us** (L. *plexus*, woven together).—The name given to the interlacing networks of nerves or nerve-fibres found in different parts of the body.

**Pli'ca gubernā'trix** (L. governing or guiding fold).—An elevated fold which projects into the peritoneal pouch of the foetus previous to the descent of the testis.

**Pli'ca semilunā'ris** (L. semilunar fold).—A vertical fold of the conjunctiva in the inner angle of the human eye.

**Pli'cae semilunā'res** (L. semilunar folds).—Two folds of the peritoneum, behind the bladder.

**Plu'mulæ** (L. little feathers).—The fine feathers or *down* of birds.

**Plu'mule** (L. *plumula*, a little feather).—The first bud of the embryo plant.

**Pneumātic** (Gr. *pneuma*, *pneumatos*, air).—Containing air, as some bones of birds and other animals do.

**Pneumā'tophore** (Gr. *pneuma*, *pneumatos*, air; *phōreo*, I bear).—A kind of float formed in some Hydrozoa by a sac containing air, which is developed from one extremity of the hydrosoma.

**Pneumogas'tric** } (Gr. *pneumōn*, the lungs; *gaster*, the sto-  
**Pneumogas'trici** } mach).—A term applied to the tenth pair of cerebral nerves, because distributed, amongst other parts, to the lungs and stomach.

**Pneumō'nia** (Gr. *pneumōn*, the lungs).—Inflammation of the lungs.

**Pō'dical** (L. *pōdex*, *podicis*, the fundament).—Applied to two triangular plates, one situated on each side of the anus, in some Insecta.

**Pōdophthal'mia** (Gr. *pous*, *pōdos*, a foot; *ophthalmos*, an eye).—A division of the Crustacea in which the eyes are supported on long foot-stalks.

**Pōdophthal'mite** (Gr. *pous*, *pōdos*, a foot; *ophthalmos*, an eye).—The terminal joint of the eye-stalk in the Podophthalmia.

**Podu'ridæ** (Gr. *pous*, *pōdos*, a foot; *oura*, a tail).—A group of insects in which the tail is used as a locomotive organ.

**Pō'tian vē'sicles**.—Cæcal prolongations given off by the circular ambulacral vessel in the Holothuridea.

**Pollen** (L. fine flour).—The fine powdery matter contained within the anther, and which is necessary for the fertilization of the ovules.

**Pollen tube**.—A long process from a pollen grain which extends itself down through the style till it reaches an ovule.

**Pol'lex** (L. thumb).—The first digit of the manus, which in man is commonly termed the thumb.

**Pōlychæ'ta** (Gr. *pōlus*, many; *chaitē*, long flowing hair).—A group of the Annelida having the segments of the body usually abundantly supplied with strong setæ.

**Pōlycīs'tina** (Gr. *pōlus*, many; *kustis*, a bladder).—A group of Protozoa with minute perforated shells.

**Pōlygas'trica** (Gr. *pōlus*, many; *gaster*, a stomach).—The name given by Ehrenberg to the Infusoria.

**Pōlyhe'dral** (Gr. *pōlus*, many; *hedra*, a seat).—Many-sided.

**Pölypary** (Gr. *pōlus*, many).—The chitinous covering of the compound Hydrozoa.

**Pölypide** (Gr. *pōlupous*, many-footed).—One of the zoids in the Polyzoa.

**Pölypite** (Gr. *pōlupous*, many-footed).—One of the zoids in the Hydrozoa.

**Pölyplacophora** (Gr. *pōlus*, many ; *plakous*, a flat cake ; *phōreō*, I bear).—A group of the Mollusca comprising the chitons.

**Pölyzo'a** (Gr. *pōlus*, many ; *zōōn*, an animal).—A group of the Invertebrata, classed by Huxley with the Brachiopoda, under the name of Malacoscolices.

**Polyzoarium** (Gr. *pōlus*, many ; *zōōn*, an animal).—The compound organism of the Polyzoa.

**Pons hē'patis** (L. bridge of the liver).—A process of the left lobe which sometimes extends across the umbilical fissure of the liver.

**Pons Varo'lii** (L. bridge of Varolus).—The mass of fibrous and vesicular nerve tissue which, crossing the ventral surface of the medulla oblongata, connects the hemispheres of the cerebellum.

**Poplite'us** (L. *poplēs*, *poplītis*, the inner part of the knee).—An oblique muscle passing from the post-axial condyle of the femur to the tibia.

**Poplite'al** (L. *poplēs*, *poplītis*, the inner part of the knee, the ham).—The name given to the arteries, veins, nerves, and lymphatics of the region at the back of the knee.

**Pörē a'reæ**.—A term applied to the pores of the Echinidea, when scattered indiscriminately over the ambulacral plates.

**Pörē fas'cīæ**.—A term applied to the pores of the *Echinidea*, when they are arranged in bands ramifying over the ambulacral and inter-ambulacral plates.

**Pörī'fera** (L. *pōrus*, a passage ; *fēro*, I bear).—A group of the Invertebrata which comprises the sponges.

**Por'tio du'ra** (L. hard portion).—A name applied to the facial nerve by those anatomists who consider it and the auditory nerve as branches of the seventh pair of cerebral nerves, and not as, according to the most usual practice, distinct nerves (*seventh* and *eighth*).

**Por'tio mol'lis** (L. soft portion).—The name given to the auditory nerve by those anatomists who reckon it as a branch of the seventh pair of cerebral nerves, instead of considering it as a distinct pair (*eighth*).

**Po'rus op'ticus** (L. optic pore).—The place where the optic nerve enters the eye, and which is usually termed the “blind spot.”

**Post'axial.**—A term applied to that surface of a limb which, when the limb is at right angles to the spinal column, is posterior (towards the tail).

**Postclav'icula** (L. *post*, after; *clavīcula*, the collar-bone).—A bone sometimes formed in connexion with the pectoral arch in the Teleostean fishes.

**Poste'rior** (L. following after).—Towards the tail; behind. In Human Anatomy sometimes used in the sense of dorsal.

**Post-fron'tal** (L. *post*, after).—A bone occurring in some Vertebrata behind the orbit above the alisphenoid.

**Postfur'ca** (L. *post*, after; *furca*, a fork).—Processes projecting from the sternal wall of each thoracic somite into the thorax in some Insecta.

**Postō'ral** (L. *post*, after; *ōs, ōris*, the mouth).—Behind the mouth.

**Postsphe'noid** (L. *post*, after).—A separate ossification of the posterior part of the sphenoid bone of the skull, seen in infancy.

**Præcō'racoid** (L. *præ*, before; *coracoid bone*).—A bone found in some Vertebrata on the ventral surface of the pectoral arch.

**Præmo'lar** (L. *præ*, before; *molar tooth*).—The name applied to those double teeth which are situated anteriorly to the *molar* teeth. It is usual in Anatomy to apply the term to those permanent grinders which replace the milk molars of the first or temporary dentition.

**Præna'sal car'tilages**—The anterior processes of the chondrocranium of the frog.

**Præō'ral** (L. *præ*, before; *ōs, ōris*, the mouth).—In front of the mouth.

**Præsto'mium** (L. *præ*, before; Gr. *stōma*, a mouth).—A segment of the body which precedes the mouth.

**Preax'ial.**—Applied to that surface of a limb which, when the limb is at right angles to the spinal column, is anterior (towards the head).

**Predicro'tic** (L. *præ*, before; Gr. *dikrotos*, striking on both sides).—Applied to the secondary pulse wave which precedes the *dicrotic* secondary wave.

**Prefron'tal** (L. *præ*, before; *frontal bone*).—A bone developed in some Vertebrata anteriorly to the frontal bone of the skull.

**Prehension** (L. *prehendo*, I lay hold of).—Adapted for catching hold of objects, as are the tails of some apes.

**Prehension** (L. *prehendo*, I lay hold of).—The act of laying hold of objects.

**Premaxilla** (L. *præ*, before; *maxilla*, the jaw-bone).—A bone developed on each side of the middle line between the nose and the anterior boundary of the mouth; represented in Human Anatomy by the incisor part of the superior maxillary bone.

**Prepuce** (L. *præputium*, the foreskin).—The anterior part of the integument of the penis.

**Presbyopia** (Gr. *présbus*, old; *opsis*, sight).—The condition of "long sight," so called because this defect of vision is usually an accompaniment of old age.

**Presphenoid** (L. *præ*, before; *sphenoid bone*).—A bone developed in some Vertebrata in front of the sphenoid bone of the skull; represented in Human Anatomy by the anterior part of the body of the sphenoid bone.

**Primate** (L. *primus*, first).—The highest division of the Vertebrata.

**Primine** (L. *primus*, first).—The outer coat of the ovule of a plant.

**Primordial** (L. *primordius*, original, first in order).—Original, first-formed.

**Primordial utricle** (L. *primordius*, original; *utriculus*, a little bag, the bud or envelope of a flower).—The outer layer of the protoplasm of a cell.

**Proboscidea** (Gr. *proboskis*, *proboskidos*, a snout, trunk).—A group of mammals which includes the elephants and other animals provided with trunks.

**Procephalic lobes** (Gr. *pro*, in front of, before; *kephalē*, the head).—Two lobes in the embryo of the Podophthalmia which subsequently develop into the anterior parts of the head.

**Procrebrum** (Gr. *pro*, in front of; L. *cerebrum*, the brain).—The fore-brain, comprising the cerebral hemispheres, corpora striata, and olfactory lobes.

**Procerite** (Gr. *pro*, before; *kéras*, a horn).—The last segment of the antennæ in the Crustacea.

**Process** (L. *processus*, a going forward).—A term applied to any outgrowth or projection of bone or other tissue.

**Processus a cærebello ad cærebrum** (L. process from the cerebellum to the cerebrum).—A white cord passing on

each side from the cerebellum to the corpora quadrigemina and optic thalami.

**Proces'sus a cérēbel'lo ad tes'tēs** (L. process from the cerebellum to the testes).—A process connecting the cerebellum with the corpora quadrigemina.

**Proces'sus arcifor'mis** (L. bow-shaped process).—A set of superficial white fibres which cross the medulla oblongata below the olfactory bodies.

**Proces'sus brē'vis vel obtū'sus** (L. short or obtuse process).—A short process on the malleus (hammer-bone) of the tympanum of the ear.

**Proces'sus cochlearifor'mis** (L. spoon-shaped process).—A thin lamina of bone above the Eustachian canal in the petrous portion of the temporal bone.

**Proces'sus cunea'tus** (L. wedge-shaped process).—A term applied to the anterior (upper) part of the posterior column of the spinal cord, where it passes into the medulla oblongata.

**Proces'sus grā'ciliis** (L. slender process).—The long process of the malleus (hammer-bone) of the tympanum of the ear.

**Proces'sus lenticula'ris** (L. lentil-shaped process).—The tubercle by which the incus of the tympanum of the ear articulates with the stapes; called also *os orbiculare*.

**Proces'sus vagina'lis peritone'i** (L. ensheathing process of the peritoneum).—A pouch of peritoneum which in foetal life passes into the scrotum, and receives the testicle in its descent.

**Proœ'lus** (Gr. *pro*, before; *kōilos*, hollow).—A term applied to those vertebræ which have their centra concave in front.

**Proctu'cha** (Gr. *prōktos*, the seat or anus).—A group of the Turbellaria in which the digestive canal is provided with an anal aperture.

**Procyo'nidae** (Gr. *pro*, before, above; *kuon*, a dog).—A division of the Carnivora.

**Produc'tidae** (L. *produco*, I prolong).—A family of extinct Brachiopoda.

**Pro-em'bryo** (Gr. *pro*, previous to; *embruon*, an embryo).—A cellular structure produced from the spore of some plants, and from which the embryo arises.

**Profun'da** (L. *profundus*, deep).—Applied to certain deep arteries of the arm, penis, and thigh.

**Proglot'tis** (Gr. *pro*, before; *glottis*, the opening into the wind-pipe).—The term applied to the detached segments of the body in the Cestoidea.

**Prognă'thous** (Gr. *pro*, forward; *gnathos*, a jaw).—A term applied to those skulls in which the craniofacial angle is large and the upper jaw protruded.

**Prolif'erate** (L. *prolēs*, offspring; *ferō*, I bear).—Applied to a part of a plant or animal produced from an unusual portion of the body.

**Prō'montory** (L. *prōmontōrium*, a mountain peak).—A projection on the sacrum; also a rounded elevation in the tympanum of the ear.

**Prona'tion** (L. *pronus*, facing downwards).—The turning of the hand with the palm downwards.

**Prona'tor tē'rēs** (L. rounded pronator).—A muscle which passes from the post-axial condyle of the humerus to the radius, and which is concerned in pronation.

**Prona'tor quadrā'tus** (L. square or four-sided pronator).—A muscle which passes from the ulna to the radius, and which is concerned in the act of pronation.

**Prono'tum** (Gr. *pro*, before; *nōtōs*, the back).—The tergal portion of the prothorax in the Insecta.

**Pro-os'tracum** (Gr. *pro*, before; *ostrākon*, a shell).—The forward continuation of the guard in the Belemnites.

**Pro-ō'tic** (Gr. *pro*, before, in front of; *ous*, *ōtos*, the ear).—A bone developed in some Vertebrata in front of the ear.

**Pro'podite** (Gr. *pro*, before; *pous*, *pōdos*, a foot).—The sixth joint of the typical limb of a Crustacean.

**Propo'dium** (Gr. *pro*, before; *pous*, *pōdos*, a foot).—The anterior division of the foot in some Gasteropoda and Pteropoda.

**Proptery'gial** (Gr. *pro*, before; *pterux*, a wing).—The name given to the anterior basal cartilage of the fins in the Elasmobranchii.

**Prosencē'phalon** (Gr. *pros*, before; *enkēphalon*, the brain).—The fore-brain, comprising the cerebral hemispheres and olfactory processes.

**Prosobranchia'ta** (Gr. *pro*, forward; *branchia*, a gill).—A group of the Branchiogasteropoda in which the gills occupy a forward position.

**Prosopulmona'ta** (Gr. *pro*, forward; L. *pulmo*, *pulmonis*, a lung).—A group of the Pulmonata in which the pulmonary sac occupies a forward position.

**Prō'state** (L. *pro*, before; *stātus*, set).—The name of a gland set in front of the orifice of the male urinary bladder.

**Pro'tagon** (Gr. *prōtos*, first; *agō*, I lead).—A nitrogenous substance obtained from the brain and other tissues.

**Protamœba** (Gr. *prōtos*, first; *amoibē*, change).—A low form of the Monera, which is constantly changing its form by sending out and withdrawing pseudopodia.

**Pro'teid** (Gr. *prōtos*, first).—Applied to amorphous nitrogenous substances, as albumen, globulin, &c.

**Protei'dea** (Gr. *prōtos*, first; *eidos*, shape).—A group of the Amphibia.

**Pro'tein** (Gr. *prōtos*, first).—A nitrogenous substance analogous to fibrin, and erroneously supposed by Mulder to form the substance from which all albuminoids were derived.

**Proteolý'tic** (Gr. *prōtos*, first; *luo*, I loose).—Converting food material into protein.

**Proteroglý'phia** (Gr. *proteros*, before; *glupho*, I carve).—A group of snakes having the anterior maxillary teeth grooved.

**Prothallium** } (Gr. *pro*, before; *thallos*, a young shoot).—The  
**Prothal'lus** } green, leaf-like, cellular expansion which grows from the spore of a fern.

**Prothō'rax** (Gr. *pro*, before; *thōrax*, the chest).—The first somite of the thorax in the Insecta.

**Protococ'cus** (Gr. *prōtos*, first; *kokkos*, a berry).—A microscopic vegetable organism which forms the green scum upon tiles, trunks of trees, &c.

**Protoga'stric** (Gr. *prōtos*, first; *gastēr*, a stomach).—A name given to two of the subdivisions of the gastric lobe of the carapace in the Brachyura.

**Protogē'nēs** (Gr. *prōtos*, first; *gennao*, I produce).—A low form of the Monera.

**Protoplasm** (Gr. *prōtos*, first; *plasma*, from *plasso*, to shape, mould).—A nitrogenous substance, possessing so-called “vital” properties, and which is an essential constituent of all living beings, the lowest organisms consisting of simple protoplasm, the tissues of the highest being formed of differentiated protoplasm.

**Protoplas'ta** (Gr. *prōtos*, first; *plastos*, formed, moulded).—A group of the Protozoa.

**Protō'podite** (Gr. *prōtos*, first; *pous, pōdos*, a foot).—The basal division of a typical abdominal segment in the Crustacea.

**Protorosau'ria** (Gr. *proteros*, first; *sauros*, a lizard).—A group of the Lacertilia, which comprises the oldest known Sauropsida.

**Protoso'mites** (Gr. *prōtos*, first; *sōma, sōmatos*, a body).—The rudimentary body-segments in the embryo of the Polychæta.

**Protover'tebræ** (Gr. *prōtos*, first).—The rudimentary segments formed in the vertebrate embryo from the medullary plates, and from which the bodies of the vertebræ, spinal nerve-roots, &c., are developed.

**Proventrī'culus** (L. *pro*, before; *ventrīculus*, the stomach).—A dilatation of the lower portion of the oesophagus in birds. A similar enlargement of the alimentary canal in some Insecta.

**Psaltē'rium** (L. a psaltery).—The third division of the stomach of a ruminant, so called because when slit open longitudinally, the folds of its mucous membrane fall apart like the leaves of a book.

**Pseu'd-hæ'mal** (Gr. *pseudos*, false; *haima*, blood).—Applied to the circulatory system of canals in the Annelida and other Invertebrata.

**Pseu'do-bran'chia** (Gr. *pseudos*, false; *branchia*, a gill).—A *rete mirabile* in the Teleostean fishes, which lies on the inner side of the hyomandibular bone, and sometimes has the form of a gill.

**Pseu'do-fila'ria** (Gr. *pseudos*, false; L. *filum*, a thread).—A mobile process similar to a thread-worm produced in the course of the development of some Infusoria.

**Pseu'do-navicella** (Gr. *pseudos*, false; L. *navicella*, dim. of *navis*, a ship).—Small spindle-shaped cells formed in the course of development in the Gregarinidæ.

**Pseudopo'dia** (Gr. *pseudos*, false; *pous*, *pōdos*, a foot).—The processes alternately thrust forth and withdrawn by amœboid cells.

**Pseu'doscope** (Gr. *pseudos*, false; *skopeo*, I behold).—An instrument by means of which hollow objects are made to appear convex, and convex bodies hollow.

**Pseu'dovary** (Gr. *pseudos*, false; L. *ovum*, an egg).—In some insects the organ within which the young are developed.

**Pseu'dovum** (Gr. *pseudos*, false; L. *ovum*, an egg).—A cell formed in the pseudovary of some insects, and which subsequently develops into the larva.

**Psittacomor'phæ** (Gr. *psittakos*, a parrot; *morphe*, form).—The parrots, a group of carinate birds.

**Pso'as ma'jor** (Gr. *psoa*, the loins; L. *major*, greater).—A muscle passing from the posterior dorsal or lumbar vertebræ to the femur.

**Pso'as mi'nor** (Gr. *psoa*, the loins; L. *minor*, smaller).—A muscle passing from the under surface of the posterior dorsal or lumbar vertebræ to the ilium or pubis.

**Pterocar'diac os'sicle** (Gr. *pteron*, a wing; *kardia*, a stomach; L. *ossiculum*, a little bone).—A small triangular ossicle in the skeleton of the stomach in some Crustacea.

**Pteroclomor'phæ** (Gr. *pterodes*, the generic name of the sand-grouse; *morphe*, form).—A group of carinate birds comprising the sand-grouse.

**Pterodac'tylus** (Gr. *pteron*, a wing; *daktulos*, a finger).—An extinct flying reptile belonging to the Pterosauria.

**Pterō'poda** (Gr. *pteron*, a wing; *pous, pōdos*, a foot).—A division of the Mollusca which swim by wing-like processes attached to the head.

**Pterosau'ria** (Gr. *pteron*, a wing; *sauros*, a lizard).—A group of extinct flying reptiles.

**Ptero'tic** (Gr. *pteron*, a wing; *ous, ôtos*, the ear).—An ossification of the skull occurring in some Vertebrata, between the pro-otic and the epiotic bones.

**Pter'ygoid** (Gr. *pterux*, a wing; *eidos*, form).—The name of a pair of bones, in the facial apparatus of some Vertebrata, behind the palatines; known in Human Anatomy as the pterygoid plates of the sphenoid bone.

**Pterygoi'deus pro'prius** (L. special pterygoid).—A small muscle sometimes occurring, and which passes from the great wing of the sphenoid bone to the palate bone or pterygoid plate.

**Pterygomaxil'lary fissure**.—A fissure which separates the external pterygoid plate from the superior maxillary bone.

**Pterygomaxill'ary ligament**.—A narrow band of tendinous fibres stretching from the internal pterygoid plates to the lower jaw.

**Pterygopă'latine artery**.—A small branch of the maxillary artery.

**Pterygopă'latine canal**.—A small canal between the internal pterygoid plate and the palate bone which lodges the pterygopalatine artery.

**Pterygostō'mial plates** (Gr. *pterux*, a wing; *stōma*, an opening).—The portions of the carapace in the Brachyura which run forwards parallel with the axis of the body.

**Pter'ylæ** (Gr. *pterux*, a wing).—The bands of contour feathers in birds.

**Pto'sis** (Gr. *ptōō*, I fall).—Inability to raise the upper eyelid.

**Pty'alin** (Gr. *ptuo*, I spit).—The nitrogenous essential principle of saliva.

**Pu'bis** (L. *pubēs*, the region of the groin).—A bone of the pelvis which in man forms the anterior portion of the *os innominatum*.

**Pu'bo-fe'moral.**—The name given to a ligament entering into the formation of the capsule of the hip-joint.

**Pu'bo-ure'thal.**—An occasional muscle of the perineum.

**Pu'bo-vē'sical.**—An occasional muscle of the perineum passing from the back of the symphysis pubis to the neck of the bladder.

**Puden'da** (L. *pudens*, modest).—The *labia majora*; also the *vulva*.

**Puden'dal**.—A branch of the small sciatic nerve, supplying the region below the pubis.

**Pu'dic** (L. *pudicus*, modest).—The name given to the arteries, nerves, and veins supplying the generative organs.

**Pul'i'cidæ** (L. *pulex*, *pulicis*, a flea).—A group of insects which comprises the fleas.

**Pul'mo-cuta'neous** (L. *pulmo*, a lung; *cutis*, skin).—A vein which supplies blood to the lungs and skin in some Vertebrata.

**Pul'mo-gasterō'poda** (L. *pulmo*, a lung; Gr. *gastēr*, a stomach; *pous*, *podos*, a foot).—The division of the Gasteropoda which includes all those forms which breathe air directly by means of a pulmonary sac.

**Pul'monary** (L. *pulmo*, a lung).—Relating to the lungs, as the *pulmonary artery*, which conveys blood to the lungs. Also applied to any apparatus which answers the purpose of a lung, as the *pulmonary sac* in the Gasteropoda.

**Pul'mona'ta** (L. *pulmo*, a lung).—A group of the Odontophora which breathe air directly.

**Pulvi'nar** (L. a couch covered with cushions).—A prominence on each thalamus opticus of the brain.

**Pun'cta lachrymā'lis** (L. lachrymal spot).

**Punc'tum cæ'cum** (L. the blind spot).—The point of the retina from which the optic nerve fibres radiate, so called because insensible to light.

**Pu'pa** (L. a doll).—A chrysalis. The stage in the metamorphosis of an insect intermediate between the larva and the imago.

**Pupi'para** (L. *pupa*, a doll).—A group of insects, destitute (or nearly so) of wings.

**Pus.**—Matter from a sore.

**Pyenogo'nida** (Gr. *puknos*, great, excessive; *gonu*, a knee).—A group of the Arthropoda having very long ambulatory limbs.

**Py'gal** (Gr. *pugē*, the buttocks).—A term applied to the posterior plates of the dorsal shield of the Chelonia.

**Pyg'iidium** (Gr. *pugē*, the rump).—The terminal segment of the body in the Polychæta; also the posterior part of the carapace of a Trilobite.

**Py'gostyle** (Gr. *pugē*, the rump; *stulos*, a style, pen).—The ploughshare-shaped bone which supports the tail feathers in most birds.

**Pylan'gium** (Gr. *pulē*, gate, inlet; *angeion*, a vessel).—The first or receiving part of the truncus arteriosus of the lower Vertebrata.

**Pylo'ric cæ'ca** (L. *cæcūs*, blind).—Blind diverticula of the intestine in Teleostean fishes; also similar diverticula of the ventriculus in some insects.

**Pylo'rūs** (Gr. *pulourus*, a gate-keeper).—The opening of the stomach which leads into the intestine.

**Pyramidālis abdo'minis** (L. pyramidal of the abdomen).—A small muscle arising from the pubis, and inserted in the linea alba.

**Pyramidālis na'si** (L. pyramidal of the nose).—A muscle of the nose.

**Pyrex'ia** (Gr. *pur*, fire; *echo*, to hold).—Fever.

**Py'riform** (L. *pyrus*, a pear; *forma*, shape).—Pear-shaped.

**Pyrifor'mis** (L. pear-shaped).—A muscle passing from the pelvis to the great trochanter of the femur.

## Q.

**Quad'rāte bone** (L. *quadrātus*, square, quadrangular).—A bone by which the lower jaw is articulated to the skull in all Vertebrata below Mammals.

**Quad'rato-ju'gal** (L. *quadrātus*, square; *jūgum*, a yoke).—A bone of the face lying behind the maxillary and jugal bones in some Vertebrata; in others a bone formed by the union of the quadrate and jugal bones.

**Quadra'tus fe'moris** (L. square [muscle] of the femur).—A muscle passing from the ischium to the femur.

**Quadra'tus lumbo'rūm** (L. square [muscle] of the loins).—A muscle placed between the last rib and the crest of the ilium, close to the vertebral column.

**Quadra'tus men'ti** (L. square [muscle] of the chin).—A muscle which by its contraction depresses the lower lip.

**Quad'riceps exten'sor** (L. four-headed extender).—The extensor muscle of the knee.

## R.

**Ră'cemose** (L. *răcēmōsus*, full of berries).—A term applied to the small glands in which the cells are arranged in clusters round a central duct.

**Ră'chis** (Gr. *rachis*, a spine, ridge).—The stem of a fern frond ; the shaft of a bird's feather. Also a cellular cord in the Crinoidea.

**Radialē**.—A bone of the carpus which articulates with the radius.

**Radial'ia** (L. *radius*, a spoke, a ray).—Radial pieces in the calyx of the Crinoidea. Also the cartilages which radiate from the basal pieces of the fins of the Elasmobranchii.

**Radia'ta** (L. *radius*, a ray).—According to Cuvier's system of classification, one of the animal sub-kingdoms.

**Ră'dicle** (L. *rădix*, a root).—The root of an embryo plant.

**Radio'l'ria** (L. *radius*, a ray).—A group of the Protozoa.

**Ră'dius** (L. a ray, a spoke).—The outer bone of the ante-brachium or fore-arm of the Vertebrata. A slender rod articulated to each of the radial pieces of the oral skeleton in the Echinidea.

**Ră'dūla** (L. a scraper).—A part of the odontophore in the Mollusca.

**Ră'mus** (L. a branch).—The name given to each half of the lower jaw in the Vertebrata, and also to regions of the ischium and pubis.

**Ră'phē** (Gr. *rāphē*, a seam).—A term applied to a fine longitudinal band of fibres running in the middle of the medulla oblongata ; applied also to similar bands of fibres in the Corpus callosum, and the Pons Varolii ; also to the ridge separating the scrotum into two halves ; also to the median furrow which runs along the dorsum of the tongue.

**Rapto'rēs** (L. *raptor*, pl. *raptiores*, one who seizes, a robber).—According to the old system of classification, an order of birds which included the birds of prey.

**Răti'tæ** (L. *rătis*, a ship without a keel).—A division of the class Aves, destitute of a keel to the sternum.

**Receptă'cula sē'minis** (L. receptacles of the semen).—Organs in the earth-worms which receive the male reproductive fluid.

**Receptă'culum chy'li** (L. receptacle or cistern of the chyle).—The dilated posterior extremity of the thoracic duct.

**Receptāculum gan'glii petro'si** (L. receptacle of the petrosal ganglion).—The hollow in the temporal bone which contains the petrosal ganglion.

**Recti abdo'minis** (L. straight muscles of the abdomen).—Two muscles extending one on each side of the middle line of the trunk from the pelvis to the sternum.

**Recti cā'pitis** (L. straight muscles of the head).—Straight muscles passing from the upper part of the vertebral column to the head; there are two sets, anterior (*recti cāpitis antīci*), and posterior (*recti cāpitis postīci*).

**Recti fē'moris** (L. straight muscles of the femur).—Muscles extending (one on each side) from the pelvis to the patella.

**Recti latera'lēs** (L. lateral straight muscles).—Straight muscles of the side of the trunk.

**Recti postīci** (L. posterior straight muscles).—Straight muscles of the posterior region of the trunk.

**Recto-vē'sical fas'cia** (L. rectum and bladder fascia).—A fascia lying between and connecting the rectum and urinary bladder.

**Rec'tum** (L. the seat).—The last portion of the large intestine.

**Rectus** (L. straight; pl. *recti*).—A name given to certain straight muscles, as those above mentioned, and the *external, internal, superior, and inferior recti* muscles of the eye.

**Recur'rent** (L. *recurro*, I run back).—Applied to branches of arteries and nerves which turn back in their course.

**Ren'al** (L. *rēnēs*, the kidneys).—Relating to the kidneys, as the *renal artery*, which supplies the kidney with blood.

**Rē'nēs succenturia'ti** (L. substituted kidneys).—An old term for the *supra-renal capsules*.

**Respirā'tion** (L. *respiro*, I breathe, respire).—The act of alternately taking in and giving out air; breathing.

**Res'tiform** (L. *restis*, a cord; *forma*, shape).—Cord-shaped. Applied to the columns in the medulla oblongata which are continuous with the posterior columns of the spinal cord.

**Rē'te mirā'bile** } (L. wonderful net or wonderful nets).—A **Rē'tia mirabīlia** } number of branches, forming a network, derived from a number of arteries or veins, and uniting again into larger trunks.

**Rēte mucō'sum** (L. mucous net).—The deeper portion of the epidermis, containing the pigment to which the skin owes its tint.

**Rētē vasculō'sum tes'tis** (L. vascular net of the testicle).—The network of tubes into which the vasa recta of the testicles are gathered.

**Retīcular** (L. *rēte*, a net).—Net-like; disposed like the threads of a net.

**Retīculum** (L. a little net).—The name given to the web of delicate connective tissue between the nervous elements in the spinal cord and some parts of the brain.

**Rētiform** (L. *rēte*, a net; *forma*, shape).—Net-shaped; like a network.

**Rētina** (L. *rēte*, a net).—The delicate expansion of the optic nerve which forms the inner coat of the eye.

**Retină'cula** (L. restraining bands).—Bands which serve to hold the tendons close to the bones in such joints as those of the wrist, ankle, &c. Also the ridge which extends for some distance round the ileo-cæcal valve.

**Retrac'tor** (L. *rētracto*, to draw back).—A name given to those muscles which by their contraction withdraw the parts to which they are attached, as the retractor muscles which withdraw the foot in the Lamellibranchiata.

**Retrac'tor bul'bi** (L. retractor of the bulb).—Another name for the *musculus choanoides* of the eye—which see.

**Rēträhens aurī'culam** (L. retractor of the auricle).—One of the muscles of the auricle of the ear.

**Rhabdocœla** (Gr. *rhabdos*, a rod, line; *koilic*, the bowels).—Applied to those Turbellaria which have a straight digestive cavity.

**Rha'chis** (Gr. a spine, ridge).—A cord of protoplasm formed in the ovary of the Nematoidea, round which the ova are developed.

**Rhamphorhyn'chus** (Gr. *rhamphos*, a beak; *rhunchos*, a snout).—A genus of the Pterosauria having the jaws produced into toothless beaks.

**Rhe'ideæ** (*Rhea*, the American ostrich).—A group of birds which comprises the American ostriches.

**Rhi'nal pro'cesses** (Gr. *rhis*, *rhinos*, the nose).—Two slender cartilages in the chondro-cranium of the frog.

**Rhinencē'phalon** (Gr. *rhis*, *rhinos*, the nose; *enkephalon*, the brain).—A term applied to the olfactory lobes of the brain.

**Rhizocē'phala** (Gr. *rhiza*, a root; *kephalē*, the head).—A group of small parasitic Crustacea.

**Rhi'zoid** (Gr. *rhiza*, a root; *eidos*, shape).—A term applied to the rootlets of Chara and similar plants.

**Rhi'zomē** (Gr. *rhiza*, a root; *omos*, the same as).—An underground stem, as that of ferns.

**Rhizo'poda** (Gr. *rhiza*, a root; *pous, pōdos*, a foot).—A group of the Protozoa having the power of thrusting out root-like pseudopodia.

**Rhizostō'midæ** (Gr. *rhiza*, a root; *stōma*, an opening).—A family of the Discophora having on their arms a number of small openings through which food is taken.

**Rhom'boid ligament** (Gr. *rhombos*, an equilateral four-sided figure with oblique angles; *eidos*, shape).—A ligament attached to the cartilage of the first rib, and to the under surface of the clavicle.

**Rhombo'i'deus ma'jor** (Gr. *rhombos*, a rhomb; *eidos*, form; L. *major*, greater).—A muscle passing from the anterior dorsal part of the vertebral column to the scapula.

**Rhombo'i'deus mi'nor** (Gr. *rhombos*, a rhomb; *eidos*, shape; L. *minor*, less, smaller).—A muscle passing from the posterior cervical and anterior dorsal regions of the vertebral column to the scapula.

**Rhynchocē'phala** (Gr. *rhunchos*, a snout; *kēphalē*, the head).—A group of the Lacertilia containing only the genus Sphenodon or Rhynchocephalus.

**Rhynchonel'lidae** (Gr. diminutive of *rhunchos*, a snout).—A family of the Brachiopoda.

**Rhyth'mical** (Gr. *rhuthmos*, measured time).—Acting at regular intervals, as the pulsation of the heart.

**Ri'gor mort'is** (L. rigidity of death).—The stiffening of the muscles which takes place shortly after death.

**Ri'ma glot'tidis** (L. cleft of the glottis).—The aperture of the glottis.

**Risō'rius muscle** (L. *rīdeo*, I laugh).—One of the muscles of the cheek.

**Roden'tia** (L. *rodo*, I gnaw).—A division of the Mammalia which embraces the rodents or gnawing animals.

**Rosē'tte** (Fr. a small rose, rosette).—A plate occupying the space between the first five radials in the Crinoidea.

**Ros'trum** (L. the snout of an animal or beak of a bird).—Applied to the frontal spine of the Crustacea; also to the guard of the Belcmnites.

**Ros'trum of cor'pus callo'sum** (L. *rostrum*, the beak of a bird).—The inferior reflected portion of the corpus callosum.

**Ros'trum of sphe'noid bone** (L. *rostrum*, the beak of a bird).—A sharp prominence of the anterior surface of the sphenoid bone of the skull.

**Rota'torēs spi'ne** (L. rotators of the spine).—Eleven pairs of small muscles, each passing from the transverse processes of one vertebra to the next vertebra above.

**Rotifera** (L. *rota*, a wheel; *fēro*, I carry).—A group of microscopic animals belonging to the division of the Trichoscolices.

**Ro'tula** (L. a little wheel).—Another name for the patella or knee-pan. Also the name given to each of the radial pieces connected with the mouth apparatus of the Echinidea.

**Ru'gæ** (L. wrinkles).—A name given to certain temporary folds of mucous membrane, as the rugæ of the stomach and of the vagina.

**Rugo'sa** (L. *rugōsus*, wrinkled).—A group of extinct corals.

**Ru'men** (L. *rūmino*, to chew the cud).—The first stomach or “paunch” of a ruminant.

**Ruminan'tia** (L. *rūmino*, to chew the cud).—A division of the Artiodactyla which comprises those animals which ruminant or “chew the cud.”

## S.

**Saccharomy'cēs** (Gr. *sakcharon*, sugar; *mukēs*, a fungus).—The yeast-plant.

**Sac'culus** (L. a small bag).—The small division of the membranous vestibule of the internal ear. An abnormal protrusion of the mucous membrane of the bladder through its muscular coat.

**Sa'cral**.—Relating to the region of the sacrum.

**Sa'cro-coccyge'us post'icus**.—A small occasional bundle of muscular fibres extending from the lower end of the sacrum to the coccyx.

**Sa'cro-iliac**.—The articulation of the sacrum with the ilium.

**Sa'cro-lumba'lis**.—A large muscle passing from the ilium to the lower (posterior) ribs.

**Sa'cro-sciā'tic**.—Applied to certain ligaments of the pelvis; also to two foramina left between these ligaments and the os innominatum of each side.

**Sa'crum** (L. sacred).—The name given to the ankylosed vertebræ of that region of the vertebral column which immediately succeeds the lumbar region, and to which the pelvic arch is articulated; so named on account of its being formerly in man an object of superstitious regard.

**Sagitt'a** (L. an arrow).—The name given to the larger and anterior of the two otoliths of the ear in some fishes.

**Sagittal suture** (L. *sāgitta*, an arrow; *sutura*, a seam).—The suture which connects the parietal bones of the skull.

**Salamandri'dea** (Gr. *sālāmandra*, a salamander).—A group of the Amphibia.

**Sali'va** (L. *sālīva*, spittle).—The spittle; the secretion of the salivary glands of the mouth.

**Salivary** (L. *sālīva*, spittle).—Relating to the saliva, as the *salivary glands* by which it is secreted.

**Saliv'in** (L. *sālīva*, spittle).—A nitrogenous substance contained in saliva.

**Salpin'go-pharynge'us** (Gr. *salpinx*, a trumpet; *pharunx*, the pharynx).—An occasional muscle passing from the Eu-stachian tube to the pharynx.

**Saphē'na** } (Gr. *saphēnēs*, manifest).—Applied to a nerve and  
**Saphe'nous** } a vein, both near the surface of the skin, and passing from the knee to the ankle.

**Sarcolem'ma** (Gr. *sarx*, flesh; *lemma*, a husk).—The sheath of connective tissue which surrounds each fibre of a striated muscle.

**Sar'cous** (Gr. *sarx*, flesh).—Fleshy; applied to the contractile elements of which a striated muscular fibre is composed.

**Sarto'rius** (L. *sartor*, a tailor).—A muscle passing along the front of the thigh from the ilium to the tibia.

**Saurobatra'chia** (Gr. *sauros*, a lizard; *batrachos*, a frog).—A group of the Amphibia, also named Urodela.

**Sauropsi'da** (Gr. *sauros*, a lizard; *opsis*, appearance).—One of the three primary groups or provinces of the Vertebrata; it includes the classes Aves and Reptilia.

**Sauru'ræ** (Gr. *sauros*, a lizard; *oura*, a tail).—A division of the class Aves, including the extinct bird Archæopteryx, which possessed a tail longer than its body.

**Scā'la mē'dia** (L. middle staircase).—The name given to the canal in the lamina spiralis of the cochlea of the ear.

**Scā'la tym'pani** (L. staircase of the drum).—The name given to the canal in the cochlea of the ear which commences opposite the fenestra rotunda of the tympanum.

**Scā'la vestib'uli** (L. staircase of the vestibule).—The name given to the canal in the cochlea of the ear which communicates with the vestibule.

**Scala'riform** (L. *scalaria*, stairs; *forma*, shape).—Ladder-like. The name given to a form of vegetable tissue having transverse markings like the steps of a ladder.

**Scale'nus** (Gr. *skalēnos*, with unequal sides).—Applied to each of a group of muscles in the neck.

**Scanso'rēs** (L. *scansōrius*, adapted for climbing).—According to the old system of classification, an order of birds; it included the parrots and cuckoos.

**Scansō'rius** (L. adapted for climbing).—A muscle which in some Vertebrata passes from the ilium to the femur.

**Scaphō'cerite** (Gr. *skaphē*, a bowl; *kēras*, a horn).—The flattened plate which is attached to the second joint of the antennæ in the Crustacea.

**Scaphog'nathite** (Gr. *skaphē*, a bowl; *gnathos*, a jaw).—A wide oval plate attached to the second maxilla in the Crustacea, and used for baling the water out from the gill chamber.

**Sca'phoid** } (Gr. *skūphē*, a boat; *eidos*, shape).—The name of **Scaphoi'dēs** } one of the bones of the carpus, and also one of the tarsus.

**Scaphō'poda** (Gr. *skaphē*, a boat; *pous*, *pōdos*, a foot).—A group of the Odontophora.

**Scă'pula** (Latin).—The shoulder-blade, or its representative in the lower Vertebrata.

**Scă'pula accesso'ria** (L. additional scapula).—A small bone developed in some birds on the outer side of the shoulder-joint.

**Sca'pus** (L. a stalk).—The main stem of a bird's feather.

**Schindy'lesis** (Gr. *schinduleo*, I split).—A term applied to a joint where one bone is received into a groove in another, as in the case of the sphenoid bone and the vomer.

**Schi'zocæle** (Gr. *schisis*, a splitting; *koilē*, a cavity).—A term applied to the perivisceral cavity of the Invertebrata, when formed by a splitting of the mesoblast of the embryo.

**Schizo'gnathæ** (Gr. *schisis*, a splitting; *gnathos*, a jaw).—A subdivision of the carinate birds.

**Schizo'poda** (Gr. *schisis*, a splitting; *pous*, *pōdos*, a foot).—A group of the Podophthalmia.

**Sciā'tic** (an abbreviation of *ischiatric*).—Relating to the region of the hip.

**Scincoi'dea** (L. *scincus*, a species of lizard; Gr. *eidos*, shape).—A group of the Lacertilia.

**Sciūromor'pha** (L. *sciūrus*, a squirrel; *morphe*, form).—A group of Rodents which comprises the squirrels.

**Scleren'chyma** (Gr. *sklēros*, dry; *enchuma*, tissue).—Hard woody fibre in plants; also the calcareous part of a growing coral.

**Sclerobase** (Gr. *sklērōs*, hard ; *basis*, a foundation).—The hard chitinous or calcareous material which forms the central portion of the common stem in some compound Actinozoa.

**Sclerodermite** (Gr. *sklērōs*, hard ; *derma*, skin).—The hard calcareous skeleton in the Crustacea ; also applied to the coral which is formed within the tissues of the reef-building polypes.

**Sclerotic** (Gr. *sklērōs*, hard).—The thick outer tunic of the eyeball.

**Sclerotome** (Gr. *sklērōs*, hard ; *temno*, I cut).—Partitions which in some Vertebrata, especially fishes, separate the muscles into zones.

**Scrobiculus cordis** (L. *scrobiculus*, a small pit ; *cordis*, of the stomach).—The pit of the stomach, a depression in the upper part of the epigastric region.

**Scrotum** (L. a hide).—The bag which in the higher Vertebrata contains the testes.

**Scuta** (L. a shield).—The lower or proximal pieces of the valves in the Cirripedia, by which the cirri pass out from the body.

**Scuta buccalia** (L. *scuta*, a shield ; *bucca*, the cheek).—A series of five plates situated near the mouth in the Ophiuridea.

**Scute** (L. *scuta*, a shield).—The dermal defences or scales of some Vertebrata.

**Sebaceous** (L. *sebum*, suet).—The name given to certain glands of the skin which secrete an oily material for the lubrication of the hairs.

**Secretion** (L. *scērno*, I separate, set apart).—The process of separation of materials from the blood, together with the formation of fresh substances from those materials for further use in the economy ; also used to signify any substance secreted.

**Sectorial teeth** (L. *sector*, *sectōris*, a cutter).—The fourth præmolar teeth of the dog ; so called because the præmolars of the lower jaw bite like scissor-blades against those of the upper jaw.

**Secundine** (L. *secundus*, second).—The inner coat of the ovule of a plant.

**Selachii** (Gr. *selāchos*, a sort of cartilaginous fish).—A subdivision of the cartilaginous Plagiostome fishes which comprises the sharks.

**Semen** (L. seed).—The reproductive fluid of the male.

**Semilun'ar** (L. half-moon-shaped).—Applied (amongst other things) to the valves of the veins and of the pulmonary artery and aorta.

**Semimembrano'sus** (L. half-membranous).—One of the dorsal muscles of the femur.

**Semipen'iform** (L. half-feather-shaped).—A term applied to some muscles which bear a partial resemblance to the plume of a feather.

**Semispina'lis** (L. half-spinal).—One of the dorsal muscles of the trunk.

**Sē'mita** (L. a narrow path).—Bands of modified spines found in the Echinidea.

**Semitendino'sus** (L. half-tendinous).—One of the dorsal muscles of the thigh.

**Senso'rium** (L. *sentio*, I perceive by the senses).—The seat of sensation. The nervous centre or centres to which sensory impressions must be conveyed before they can be perceived.

**Sen'sory** (L. *sentio*, I perceive by the senses).—Capable of sensation. Applied to those nerves and nerve-fibres which convey impulses resulting in sensation to a nerve-centre. Also sometimes somewhat loosely employed in the sense of *afferent*, to indicate nerve-fibres which convey impressions of any kind to a nerve-centre.

**Sē'pal.**—One of the leaflets forming the calyx of a flower.

**Sē'piostare** (L. *sēpia*, the cuttle-fish).—The “cuttle-bone,” the only representative of an endoskeleton in the cuttle-fishes.

**Sep'tula rē'num** (L. little partitions of the kidneys).—The inward prolongations of the cortical portion of the kidney.

**Sep'tum** (L. *sēpēo*, I hedge in).—A partition, as the *septum* between the right and left sides of the heart.

**Sep'tum lu'cidum** (L. clear, bright partition).—The partition which separates from each other the lateral ventricles of the brain.

**Sep'tum na'si** } (L. partition of the nose or nostrils).—The  
**Sep'tum na'rium** } partition which separates the nostrils.

**Sep'tum pectinifor'mē** (L. comb-like partition).—The partition between the corpora cavernosa of the penis.

**Sep'tum posti'cum** (L. posterior partition).—A partition which divides the subarachnoid space on the dorsal surface of the cord.

**Sep'tum scro'ti** (L. partition of the scrotum).—A partition in the scrotum which separates the two testes.

**Sep'tum transver'sum** (L. transverse partition).—An incomplete partition in the ampullæ of the semicircular canals of the ear.

**Seques'trum** (L. *sequestro*, I set aside).—A dead portion of bone separated, or destined to separate, from the living parts.

**Se'rous** (L. *sérum*, the watery part of curdled milk).—A term applied to those membranes which, forming shut sacs, secrete a watery fluid similar to the *serum* of blood.

**Serra'ted su'ture** (L. *serra*, a saw; *sutura*, a seam).—A term applied to the fixed joints, where the margins of the connected bones are notched and saw-like.

**Serra'tus mag'nus** (L. great saw-like muscle).—A large muscle of the thorax, stretching from the lateral surface of the ribs to the scapula.

**Serra'tus post'i'cus infe'rior** (L. inferior posterior saw-like muscle).—A muscle which passes from the lumbar region to the ribs.

**Serra'tus post'i'cus supe'rior** (L. superior posterior saw-like muscle).—A muscle passing from the spines of the last cervical and upper dorsal vertebræ to the ribs.

**Se'rūm** (L. the watery part of curdled milk).—The fluid part of blood, *i. e.* blood minus its corpuscles and fibrin-factors.

**Se'samoid** (Gr. *sēsamon*, a kind of small grain; *eidos*, shape).—A term applied to those small bones, such as the *patella*, which are formed in tendons.

**Ses'sile** (L. *sēdō*, I sit).—Not supported upon stalks; the opposite of pedunculated.

**Se'tæ** (L. *seta*, a bristle).—Bristle-like processes from the body segments of the worms.

**Se'tose** (L. *seta*, a bristle).—Bristly.

**Sig'moid** (Gr. the letter Σ [sigma]; *eidos*, shape).—Applied to the flexure of the intestine, which is something like the letter *sigma*; also sometimes applied to the semilunar valves of the aorta and pulmonary artery.

**Sili'ceous** (L. *silex*, flint).—Composed of flint.

**Siluroi'dei** (Gr. *silouros*, the shad; *eidos*, shape).—A family of the Physotomi, a group of Teleostean fishes.

**Sī'miadeæ** (L. *simia*, an ape).—A division of the Primates which includes the apes and monkeys.

**Sinupal'liate** (L. *sinus*, a bending, curve; *pallium*, a mantle).—A term applied to those Lamellibranchs in which the pallial line is notched.

**Si'rus** (L. a hollow, a depression).—A depression or cavity.

*Osseous sinuses* are cavities in bones which contain air.

The *venous sinuses* in the dura mater of the brain are hollows in that membrane which contain blood, and thus serve the purpose of veins. Similar venous sinuses play the part of veins in some of the Invertebrata.

**Si'rus pōcula'ris** (L. cup-like sinus).—A depression in the male urethra which leads into the prostatic vesicle.

**Si'rus rhomboida'lis** (L. rhomb-shaped sinus).—A lozenge-shaped depression left by the medullary folds of the embryo at the hinder extremity of the medullary canal. Also a small sinus found in the lumbar region of the spinal cord in birds, which is the persistent *sinus rhomboidalis* of the foetus.

**Si'rus terminalis** (L. terminal sinus).—The bounding line encircling the extreme margin of the vascular area in the embryo.

**Si'rus urogenitina'lis** (L. uro-genital sinus).—The ventral portion of the cloacal chamber in the embryo, when shut off from the intestinal portion by the development of a partition.

**Si'rus veno'sus** (L. venous sinus).—A term applied to the main portion of the auricles of the heart to distinguish them from the auricular appendages. In the lower Vertebrata the *sinus venosus* is a distinct portion of the heart formed by the junction of the large venous trunks, and is rhythmically contractile.

**Si'phon** (Gr. a tube).—One of the breathing tubes in the Mollusca. Applied also to any similar tube.

**Sipho'nium** (Gr. *siphōn*, a tube).—A bony tube which in some birds conducts the air from the tympanum to the air cavity in the articular piece of the mandible.

**Siphonōphora** (Gr. *siphōn*, a tube; *phōreō*, I bear).—A group of the Hydrozoa, comprising the marine forms.

**Siphon'cle** (L. *siphunculus*, a small pipe).—The tube which connects the chambers of the shells in the Tetrabranchiate Cephalopoda.

**Sire'nia**.—A group of the Mammalia which comprises the Manatees and Dugongs.

**Smeg'ma** (L. soap).—The white soapy substance frequently found adherent to the skins of new-born infants.

**Solēnoglýphia** (Gr. *sōlēn*, a channel; *glupho*, I sculpture, engrave).—A group of the Ophidia in which the maxillary teeth are channelled.

**Soleus** (L. *sōlēa*, a sole).—A muscle of the calf of the leg shaped much like a sole.

**Somatomes** (Gr. *sōma*, a body; *temno*, I cut).—The ideal segments of which the human body is supposed to be formed.

**Somatopleure** (Gr. *sōma*, body; *pleura*, side).—The portion of the blastoderm from which the walls of the body are developed.

**Somite** (Gr. *sōma*, a body).—The name given to each segment of the body in the Arthropoda.

**Sōricēs** (L. *sōrex*, *sōricis*, a shrew-mouse).—The shrews, a family of the *Insectivora*.

**Sōrus** (Gr. *sōros*, a heap).—The name given to the patches of sporangia on the under side of the fronds of ferns.

**Spa'dix** (Gr. *spadix*, a date-tree).—A glandular organ in the Tetrabranchiate Cephalopoda produced by the modification of the posterior tentacles.

**Sperma'rium** (Gr. *sperma*, seed).—The organ in which the sperm corpuscles are produced.

**Spermathe'ca** (Gr. *sperma*, seed; *thēkē*, a repository).—A sac in connexion with the female genital aperture of the Pulmonata for the reception of semen.

**Spermā'toblast** (Gr. *sperma*, seed; *blastos*, a germ).—The name given to certain stalk-like filaments in the seminal ducts upon which the spermatozoa are developed.

**Spermā'tophore** (Gr. *sperma*, seed; *phōreo*, I bear).—A case which in some Invertebrata encloses the spermatozoa.

**Spermatozo'on** (Gr. *sperma*, seed; *zōōn*, an animal).—The name given to the minute filaments which in animals constitute the essential male reproductive elements.

**Spha'celus** (Gr. *sphakelos*).—Gangrene.

**Sphēnē'thmoid** (Gr. *sphēn*, a wedge; *ēthmos*, a sieve; *eidos*, shape).—A bone of the frog's skull, situate in front of the parasphenoid.

**Spheniscomor'phæ** (Gr. *sphēn*, a wedge; *ischion*, the hip; *morphe*, form).—A group of birds which comprises the Penguins.

**Sphe'no-pā'latine**.—The name given to a foramen formed by the palate and sphenoid bone, through which pass the internal nerves from the *spheno-palatine*, or Meckel's ganglion, and the nasal or *spheno-maxillary artery*.

**Sphe'noïd** (Gr. *sphēn*, a wedge; *eidos*, shape).—One of the bones of the skull.

**Sphinc'ter** (Gr. *sphingo*, I bind).—The name given to certain circular muscles which keep the orifices which they surround habitually shut, as the *sphincter ani* at the distal end of the rectum, the *sphincter vesicæ* (sphincter of the bladder) at the mouth of the bladder, and the *sphincter oris* (sphincter of the mouth) or *orbicular* muscle of the mouth.

**Sphyg'mograph** (Gr. *sphugmos*, the pulse; *grapho*, I write).—An instrument for recording graphically the movements of the pulse.

**Spic'ula** (L. *spiculum*, a point).—The needle-shaped siliceous bodies found in sponges, &c.

**Spic'ulum amō'ris** (L. sting of love).—A hard pointed body contained in a sac connected with the penis in some Odontophora, and which is discharged in the act of copulation.

**Spige'lian**.—A name applied to one of the lobes of the liver, so called from the name of an anatomist.

**Spina bi'fida** (L. *spina*, a thorn; *bifidus*, split into two parts).—An abnormal condition of the sacral part of the vertebral column in which the neural canal is unclosed.

**Spī'næ mentā'lēs** (L. spines of the chin).—Two prominent tubercles on the lower jaw-bone to which muscles are attached.

**Spī'nal acces'sory**.—The eleventh pair of cerebral nerves in the higher Vertebrata, so called because they arise from the sides of the spinal cord.

**Spinā'lis cervi'cis** (L. spinal of the neck).—A small muscle passing from the spines of the posterior cervical vertebrae to the axis.

**Spinā'lis dor'si** (L. spinal of the back).—A long narrow muscle passing from the lumbar to the upper dorsal region of the spinal column.

**Spī'nows** (L. *spina*, a thorn).—Applied to the neural spines or *spinous* processes of the vertebrae; also to a process of each great wing of the sphenoid bone.

**Spī'racle** (L. *spiro*, I breathe).—An aperture which in some Elasmobranch fishes leads into the cavity of the mouth.

**Spirō'meter** (L. *spiro*, I breathe; *metron*, a measure).—An instrument for testing the capacity of the chest.

**Splan'chnic** (Gr. *splanchna*, entrails).—The name given to three (great, small, and smallest) sympathetic nerves which supply some of the viscera.

**Splan'chopleure** (Gr. *splanchna*, entrails; *pleura*, side).—The layer of the blastoderm from which the viscera are developed.

**Spleen** (Gr. *splēn*, the spleen, milt).—The largest of the ductless glands, situate in the abdomen behind the stomach.

**Splen'eli** (L. little spleens).—Detached nodules sometimes found in the neighbourhood of the spleen.

**Sple'nia** (L. *splēnium*, a splint).—A bone of the skull in some Vertebrata.

**Sple'nic**.—Relating to the spleen, as the splenic artery which supplies the spleen.

**Sple'nius cā'pitis** (L. *splēnium*, a pad; *cāput*, *cāpītis*, the head).—A muscle passing from the posterior cervical and anterior dorsal regions to the back of the head.

**Sple'nius col'li** (L. *splēnium*, a pad; *collum*, the neck).—A muscle passing from the upper dorsal to the cervical vertebræ.

**Spon'gida**.—A group of the Metazoa comprising the sponges.

**Spora'dic** (Gr. *sporas*, *sporados*, scattered).—A term applied to those ganglia, such as the *cardiac*, which are not directly connected with either the cerebro-spinal or sympathetic systems.

**Sporan'gium** (Gr. *spōra*, a seed; *angeion*, a vessel).—The receptacle in which the spores are in some plants contained.

**Spore** (Gr. *spōra*, a seed).—The name given to the cellular germinating body in Cryptogamic plants, as fungi, mosses, ferns, &c.

**Spō'rocyts** (Gr. *spōra*, a seed; *kustis*, a bladder).—Tubes formed from the caudal appendages of *Bucephalus polymorphus*, a parasite upon the fresh-water mussel, from which tubes new Bucephali are developed by internal gemmation.

**Squāli** (L. *squālī*, a kind of fish).—A group of the Plagiostome fishes which comprises the sharks; also termed Selachii.

**Squa'ma occi'pitis** (L. *squama*, a scale; *occiput*, the back of the head).—A region of the occipital bone.

**Squa'ma'ta** (L. *squāma*, a scale).—A group of the insectivorous edentates, the only genus of which has the body covered with overlapping scales.

**Squamo'sal** (L. *squāma*, a scale).—One of the bones of the skull in the lower Vertebrata, represented in Human Anatomy by the *squamous* part of the temporal bone, with the *zygoma* and the articular surface of the lower jaw.

**Squa'mous** (L. *squāma*, a scale).—Scaly; applied to a portion of the temporal bone.

**Squa'mo-zygomā'tic** (L. *squāma*, a scale ; Gr. *zugnumi*, I yoke together).—A centre of ossification in the foetal skull.

**Sta'men** (L. a thread).—The male element of a flower, consisting of a stalk or filament, and an anther containing pollen.

**Stape'dius** (L. *stapēs*, a stirrup).—A muscle connected with the *stapes* (stirrup-bone) of the ear.

**Sta'pēs** (L. a stirrup).—The small bone of the auditory ossicles which fits into the *fenestra ovalis* of the ear.

**Sta'sis** (Gr. *istēmi*, to set in a place or settle).—A settling in one place, as the blood settles in particular situations after death.

**Stă'toblast** (Gr. *stătos*, resting ; *blastos*, a germ).—A name given to the gemmule produced in the agamogenetic development of some Polyzoa.

**Ste'arin** (Gr. *steār*, tallow).—One of the neutral fats.

**Stegānophthal'mata** (Gr. *stegānos*, roofed, covered ; *ophthalmos*, an eye).—A group of the Discophora in which the lithocysts are covered by hood-like processes of the umbrella.

**Stel'latae** (L. *stella*, a star).—Star-like ; applied to a large nerve ganglion in the Dibranchiate Cephalopoda.

**Stellulae** (L. little stars).—Small veins, having a stellate arrangement, in the kidney.

**Sternālis bruto'rūm** (L. sternal of the brutes).—A muscle of the thorax (also named *rectus sternalis*), which is occasionally present in man, but is constant in some lower animals.

**Ster'no-clei'do-mas'toid** } (Gr. *sternon*, the breast ; *kleis*, the clavicle ; *mastos*, a nipple ; *eidos*, shape).—One of the muscles of the neck, passing from the sternum and clavicle to the mastoid process of the temporal bone.

**Ster'no-facia'lēs**.—Two broad muscles which, in the hedgehog, arise from the sternum, and are inserted in the sides of the lower jaw, and the integument of the face and ears.

**Ster'no-glos'si** (Gr. *sternon*, the breast ; *glōssa*, the tongue).—The name given to the long muscles which, in the ant-eaters, are attached to the sternum and to the tongue.

**Ster'no-hy'oid**.—A muscle passing from the sternum to the hyoid bone.

**Ster'no-thy'roid**.—A muscle passing from the sternum to the thyroid cartilage.

**Ster'num** (Gr. *sternon*, the breast).—The breast-bone in man, and its representative in the other Vertebrata.

**Stethōmeter** (Gr. *stēthos*, the breast ; *metron*, a measure).—An instrument for recording the movements of the chest-walls.

**Stig'ma**, pl. **Stig'mata** (Gr. *stigmē*, a puncture).—An opening leading into the respiratory tracheæ of an insect ; the part of the pistil of a flower to which the pollen is applied, and which leads to the ovary.

**Sti'pēs** (L. a log, post).—A part of the maxilla in the Insecta.

**Sti'pule** (L. *stipula*, a stalk, straw).—Little leaflets of a plant which are generally found in pairs at the point where an ordinary leaf joins the stem.

**Stō'mata** (Gr. *stōma*, *stōmatos*, a mouth, entrance).—Openings in the epidermis of the leaves and other parts of plants by which air enters. Also applied to small openings in serous membranes.

**Stōmatogas'tric** (Gr. *stōma*, *stōmatos*, a mouth, an opening ; *gaster*, the stomach).—A term applied to the nerves which supply the viscera in the Crustacea.

**Stomatōpoda** (Gr. *stōma*, *stōmatos*, a mouth, entrance ; *pōs*, *pōdos*, a foot).—A group of the Crustacea.

**Strepsip'tera** (Gr. *strepsō*, I twist, turn ; *pterōn*, a wing).—A group of the Insecta, parasitic upon bees.

**Strī'a terminal'is** (L. terminal stripe).—A narrow whitish band which runs along the inner border of each corpus striatum of the brain.

**Strī'æ longitudin'ales** (L. longitudinal stripes).—Two white tracts in the corpus callosum of the brain.

**Strī'æ medulla'rēs** (L. medullary stripes).—Several transverse white lines in the floor of the fourth ventricle of the brain.

**Stri'ated** (L. *striāre*, to make stripes ; or *strīa*, the fluting of a column).—Striped ; applied to voluntary muscular fibres.

**Stro'ma** (Gr. *strōma*, a thing spread out for lying on).—The groundwork of a tissue or organ in which the other parts are embedded.

**Struthiō'nidæ** (Gr. *strouthos*, an ostrich).—A group of birds which comprises the Ostriches.

**Style** (Gr. *stulos*, a pen, style).—Applied to any stalk or style-like body. The stalk interposed between the ovary and the stigma of a plant.

**Sty'lo-glos'sus** (Gr. *glossa*, a tongue).—A muscle passing from the styloid process of the temporal bone to the side and under part of the tongue.

**Stylo-hy'al**.—An ossification which in some Vertebrata connects the hyoidean arch with the skull; represented in Human Anatomy by the styloid process of the temporal bone.

**Stylo-hy'oid**.—The name of a muscle passing from the *styloid* process of the temporal bone to the *hyoid* bone; also of a ligament passing from the *styloid* process of the temporal bone to the lesser cornu of the *hyoid* bone; also of a small branch of the facial nerve.

**Stylo-mas'toid**.—The name of a foramen in the temporal bone between the *styloid* and *mastoid* processes; also of an artery which passes through this foramen.

**Stylo-pharynge'us**.—A muscle passing from the *styloid* process of the temporal bone to the side of the pharynx.

**Styloid** (Gr. *stulos*, a style; *eidos*, shape).—Style-like. Applied to certain processes, as the styloid process of the ulna and of the temporal bone.

**Subacro'mial bur'sa** (L. *sub*, under; *acromion*, the process of the scapula forming the summit of the shoulder; *bursa*, a pouch).—A synovial bursa superficial to the muscles forming the shoulder.

**Subaneo'neus** (L. *sub*, under; Gr. *ankōn*, the elbow).—A name sometimes given to a few muscular fibres passing from the humerus to the elbow.

**Subcau'dal** (L. *sub*, under; *cauda*, a tail).—Under the tail; applied to the chevron bones which are found in some Vertebrata.

**Subcla'veian** (L. *sub*, under; *clavícula*, collar-bone).—Under the collar-bone, as the subclavian artery and vein, which pass under the collar-bone.

**Subcla'veius** (L. *sub*, under; *clavícula*, the collar-bone).—A muscle passing from the first rib to the under surface of the collar-bone.

**Subcra'nial arches**.—A name sometimes given to the facial arches in the foetus.

**Subcru'reus** (L. *sub*, under; *crūs*, *crūris*, the leg).—A small muscle extending from the lower part of the femur to the knee-joint.

**Subhy'oid arch**.—The fourth facial arch of the foetus.

**Sublin'gual** (L. *sub*, under; *lingua*, the tongue).—Under the tongue, as the sublingual salivary glands, which are in that position.

**Sublob'ular veins**.—The name given to the small veinlets in the liver into which the intralobular veins pour their blood, and by which that blood is taken to the hepatic vein.

**Submaxillary** (L. *sub*, under; *maxilla*, a jaw).—Under the jaw, as the submaxillary salivary glands, which are thus situated.

**Submen'tal** (L. *sub*, under; *mentum*, the chin).—The name of an artery and of a vein running beneath the chin.

**Submen'tum** (L. *sub*, under; *mentum*, the chin).—One of the plates of the labium in the Insecta.

**Suboccipital** (L. *sub*, under; *occiput*, the hinder part of the head).—A branch of the first spinal nerve which runs below the back of the head.

**Subœsophagi'al** (L. under the œsophagus).—The name given to a large nerve-ganglion in the Crustacea, which underlies the gullet.

**Suboper'culum** (L. *sub*, under; *operculum*, a lid).—A bone which in some fishes forms part of the skeleton of the gill cover or operculum.

**Subperitone'al arte'rial plex'us.**—A plexus of small arteries formed from the branches of the abdominal aorta in the subperitoneal tissue of the abdomen.

**Subpu'bic arch.**—An arch or angle formed by the tuberosities of the ischia of the pelvis.

**Subpu'bic fas'cia.**—A fascia stretched across the subpubic arch.

**Subpu'bic li'gament.**—A ligament attached to the rami of the pubic bones.

**Subra'dular membrane** (L. *sub*, under; *rādula*, a scraper).—A membrane forming part of the odontophore of the Odontophora.

**Subscă'pular.**—The name given to a vein, an artery, and a nerve which run beneath the scapula. Also of a muscle passing from the inner face of the scapula to the humerus.

**Subscapula'ris.**—The name of a muscle passing from the scapula to the humerus.

**Subscapularis fossa** (L. *sub*, under; *scapula*, the shoulder-blade; *fossa*, a ditch).—A shallow depression on the anterior surface of the scapula.

**Subscap'uло-capsula'ris.**—A muscle occasionally occurring, which passes over the *subscapularis*.

**Subse'rous.**—The term applied to the connective tissue found beneath the serous membranes.

**Substan'tia cinē'rēa gelatinō'sa** (L. grey gelatinous substance).—The name applied by Rolando to the grey matter at the back part of the posterior cornu of the spinal cord.

**Substan'tiæ perforatæ** (L. perforated substances).—The tracts of the brain which connect the olfactory lobes with the uncinate gyri.

**Suc'cus ent'ericus** (L. intestinal juice).—The secretion poured out by the glands of the mucous membrane of the small intestine.

**Suchospondy'lia** (Gr. *suchnos*, long; *spondulos*, a vertebra).—Applied to those Reptilia which have dorsal vertebræ with elongated and divided transverse processes.

**Sudori'ferous** } (L. *sudor*, sweat; *paro*, I prepare; *fero*, I bear).  
**Sudori'parous** } —The name applied to the sweat glands of the skin.

**Su'iidæ** (L. *sūs*, *sūis*, a sow, hog).—A family of the Non-Ruminantia which embraces the hogs.

**Sul'cus** (L. a furrow).—The name given to the depressions which separate the convolutions of the brain; also to similar furrows in bone and other tissues, as the *sulcus frontalis* of the frontal bone.

**Sul'cus aur'culo-ventr'icular.**—A deep transverse groove which divides the heart into auricular and ventricular portions.

**Supercili'ary ridge** (L. *super*, above; *cilium*, an eyelash).—A curved elevation in the frontal bone above the margin of the orbit.

**Supin'a'tion** (L. *sup'nus*, lying on the back).—The act of turning the hands palm upwards.

**Supin'a'tor brévis** (L. short supinator).—One of the muscles of the antebrachium.

**Supin'a'tor lon'gus** (L. long supinator).—One of the muscles of the brachium passing from the humerus to the radius.

**Su'pra-acro'mial** (L. *supra*, above; Gr. *akrōn*, a summit; *ōmos*, a shoulder).—The name given to an artery and to a nerve lying above the acromion of the scapula.

**Su'pra-an'gular** (L. *supra*, above).—A bone of the mandible above the angular in some Vertebrata.

**Su'pra-bran'chial** (L. *supra*, above; Gr. *branchia*, a gill).—Applied to the dorsal division of the pallial chamber in the Lamellibranchiata, it being above the gills, which separate it from the infra-branchial chamber.

**Supracili'ary lobe** (L. *supra*, above; *cilium*, an eyelash).—The outer angles of the rostrum in the Brachyura.

**Supraclá'vicle** (L. *supra*, above; *clavicula*, the collar-bone).—A bone developed in some fishes at the dorsal end of the clavicle.

**Supraclavicular nerves.**—Nerves made up of branches of the third and fourth cervical spinal nerves which run above the clavicles.

**Supracondyloid** (L. *supra*, above; *condyle*).—The name of a small process sometimes found upon the humerus.

**Supramaxillary** (L. *supra*, above; *maxilla*, a jaw).—The name given to a branch of the facial nerve which passes over the side of the maxilla to the angle of the mouth.

**Supra-occipital** (L. *supra*, above; *occiput*, the back of the head).—A bone developed in some Vertebrata above the foramen magnum of the skull, and represented in Human Anatomy by the tabular portion of the occipital bone.

**Supra-œsophageal** (L. above the œsophagus).—The name given to a large ganglion in the Crustacea which lies above the gullet.

**Supra-orbital** (L. above the orbit).—A name given to an ossification in the skull of some Vertebrata; also of a notch or foramen in the temporal bone above the orbit, and also to the nerve and artery which pass through it.

**Supra-renal capsules** (L. capsules above the kidneys).—Bodies of unknown function situated in early life above the kidneys, but which usually waste away as age advances.

**Supra-scapular**.—The name given to a notch in the superior border of the scapula, and to the nerve which traverses it; also to the ligament attached to the notch, and which converts it into a *foramen*.

**Supra-spinatus** (L. above the spine).—The name of a muscle which arises from the supra-spinous fossa of the scapula, and is inserted into the tuberosity of the humerus.

**Supra-spi'nos** (L. above the spine).—The name given to the superior and smaller division of the posterior surface of the scapula; also the name given to the ligaments which connect the spines of the vertebræ.

**Supra-ster'nal** (L. above the sternum).—One of the branches of the cervical nervous plexus.

**Supra-trochlear** (L. *supra*, above; *trochlea*, a pulley).—A branch of the ophthalmic division of the fifth pair of nerves, which passes close to the point at which the pulley of the upper oblique muscle is attached to the orbit.

**Suspenso'rium** (L. *suspendo*, I hang, suspend).—The apparatus by which the lower jaw is suspended to the skull.

**Sustenta'culum lie'nis** (L. support of the spleen).—A fold of peritoneum stretching from the diaphragm to the colon.

**Sustenta'culum tali** (L. support of the ankle-bone).—A flattened process of the calcaneum.

**Su'tura** } (L. *sutura*, a seam).—The name given to immovable **Su'ture** } articulations of bone, as those of the bones of the skull. In Surgery the term is applied to any seam for closing a wound.

**Swim'merets.**—The abdominal appendages which in the lobster and other Crustacea are used in swimming.

**Sympathē'tic** (Gr. *sun*, together; *pathos*, suffering).—The name given to the ganglionic nervous system on account of its connexion with the cerebro-spinal system.

**Sym'physis** (Gr. *sun*, together; *physis*, growth).—A name given to certain junctions of bones, where there is not a complete articulation, but rather a growing together of adjacent bones, as the *symphysis pubis* and *symphysis* of the lower jaw.

**Symplo'e'tic** (Gr. *symploko*, to entwine together).—A bone in the Teleostean fishes which forms the lower ossification of the suspensorium, and which articulates below with the quadrate bone by which it is firmly held.

**Synan'gium** (Gr. *sunago*, to bring together, collect).—The terminal part of the *truncus arteriosus* of the lower Vertebrata, from which the arteries diverge.

**Synapti'culæ** (Gr. *sunapto*, joined together).—Processes of calcareous material which grow towards each other from the sides of the septa of the Actinozoa.

**Synarthro'sis** (Gr. *sun*, together; *arthron*, a joint).—A term applied to a joint which allows of little or no motion.

**Synchondro'sis** (Gr. *sun*, together; *chondros*, gristle).—The term applied to an articulation formed by the addition of a plate of cartilage, as in the sacro-iliac synchondrosis.

**Syn'chronous** (Gr. *sun*, together; *chrōnos*, time).—Occurring at the same time.

**Syn'copē** (Gr. *sunkōpē*, a swoon).—Unconsciousness from failure of the heart's action.

**Syn'cytium** (Gr. *sunchusis*, a mixing together).—A term applied by Haeckel to the ectoderm of the *Calcispongæ*, a family of the Porifera.

**Syndac'tylus** (Gr. *sun*, together; *daktylos*, a finger).—Having the digits connected by a web.

**Syndes'mo-pharynge'us** (Gr. *sundesmos*, a band).—An occasional muscle of the pharynx in man.

**Synos'tosis** (Gr. *sun*, together; *osteon*, a bone).—A term applied to the premature obliteration of the sutures of the skull.

**Syno'via** (Gr. *sun*, together; *ōon*, an egg).—The fluid secreted for the lubrication of the joints by the synovial membranes, so called because resembling the white of an egg.

**Syno'vial** (Gr. *sun*, together; *ōon*, an egg).—Applied to the *bursae* or membranous sacs secreting the synovia, and which line the movable joints; also to the synovia itself, under the name of the *synovial* fluid.

**Syn'tonin** (Gr. *sun*, together; *teino*, I stretch).—A peculiar variety of fibrin obtained from muscular fibre.

**Sy'rinx** (Gr. *surinx*, a pipe, flute).—The lower larynx in birds by which the voice is produced.

**System'ic.**—Relating to the system as a whole. Applied to that portion of the circulation by which the blood is conveyed from the left ventricle of the heart, over the system and back to the right auricle. A “systemic” heart in the Invertebrata is one which propels blood over the system after receiving it from the gills.

**Sys'tole** (Gr. *sustello*, to draw together, contract).—A contraction. Applied to the contraction of the heart.

## T.

**Tac'tile** (L. *tactus*, touching).—Relating to touch, as the *tactile corpuscles*, which are concerned in the sense of touch. Tactile nervous impressions are those which, when conveyed to the brain, result in the perception of touch.

**Tæ'nia hippocam'pi** (Gr. *tainia*, a band or ribbon; *hippos*, a horse; *kampto*, I bend).—A narrow white band which runs along the hippocampus major of the lateral ventricles of the brain.

**Tæ'nia semicircula'ris** (Gr. *tainia*, a band or ribbon).—A narrow flat band between the corpus striatum and optic thalami of the brain.

**Tæ'niada** (Gr. *tainia*, a ribbon).—The tape-worms.

**Ta'lo-scaph'oid** (L. *talus*, the astragalus; *scaphoid bone*).—The name given to a ligament on the dorsum of the foot, which extends from the astragalus to the scaphoid bone.

**Tal'pinae** (L. *talpa*, a mole).—The moles, a family of the Insectivora.

**Ta'lus** (L. a die).—Another name for the astragalus—which see.

**Tapē'tum** (L. *drapery*, *carpet*).—The shining layer existing in the choroid coat of the eye in some animals. Also a layer of fibres upon the surface of the lateral ventricles of the brain.

**Tar'digrada** (L. *tardē*, slowly; *grādus*, a step).—A group of the Phytophagous Edentata which comprises the sloths.

**Tar'sal cartilages** (L. *tarsus*, the cartilage supporting the eye).—Cartilages placed one in each eyelid to give firmness to those parts.

**Tarsa'lia** (Gr. *tarsos*, the flat of the foot).—The bones of the tarsus.

**Tar'so-mē'tatarsus**.—The ankylosed tarsus and metatarsus in birds.

**Tar'sus** (Gr. *tarsos*, the flat of the foot).—That part of the posterior extremity in the Vertebrata which intervenes between the crus and the metatarsus, and which in man forms the ankle. Also the fifth segment of the leg in the Insecta.

**Taurochō'lic acid** (Gr. *tauros*, a bull; *chōlē*, bile).—An acid found in the bile of the ox, and also largely in that of man.

**Taxo'nomiy** (Gr. *taxis*, arrangement, order).—That division of the science of Biology which treats of the classification of animals and plants according to their structural characteristics.

**Tecto'rial mem'brane** (L. *tectōrius*, used for covering).—A membrane connected with the organ of Corti in the internal ear.

**Tegmen'tum of cru'ra cē'rebri** (L. *segmentum*, a covering).—The fibres forming the upper part of the peduncle of the brain.

**Te'la choroi'dea** (L. choroid web).—Another name for the velum interpositum which connects the choroid plexuses of the two sides of the cerebrum together.

**Teleō'logy** (Gr. *tēlos*, an end accomplished; *lōgos*, a discourse).—The study of function.

**Teleos'tei** (Gr. *tēlos*, complete, whole).—A division of the class Pisces, comprising the so-called *osseous* (bony) fishes.

**Telosau'ridæ** (Gr. *tēlos*, the end, limit; *sauros*, a lizard).—A group of the Crocodilia, extinct and of pre-cretaceous age.

**Telotro'cha** (Gr. *tēlos*, the end, limit; *trōchos*, anything round).—A name given to certain Annelidan larvæ.

**Tem'poral** (L. *tempora*, the temples).—The name of each of a pair of bones in the skull; also of the arteries, nerves, and veins supplying that portion of the skull.

**Tem'po-ro-fa'cial**.—The name of a division of the facial nerve.

**Tem'po-ro-ma'lar.**.—A small branch of the second, (superior maxillary,) division of the fifth pair of cerebral nerves.

**Tem'po-ro-maxil'lar.y.**.—The name of one of the veins of the head, also termed *common facial*; also the name of the articulation of each ramus of the lower jaw with the skull.

**Tem'po-ro-pari'etal.**.—The name given to the suture which joins the temporal and parietal bones of the skull.

**Ten'do Achil'lis** (L. the tendon of *Achilles*).—The thickest and strongest tendon in the body, formed by the union of the tendons of the gastrocnemius and soleus muscles, and attached to the heel-bone; so named because the Grecian hero Achilles was only vulnerable in the heel.

**Ten'do palpebra'rum** (L. tendon of the eyelids).—A small tendon of the *orbicularis* muscle of the eyelids.

**Ten'don** (L. *tendo*, I. stretch).—The name given to the bands of connective tissue by which muscles are attached to bones, &c.

**Ten'dril** (L. *tendo*, I. stretch out, extend).—The filaments by which climbing plants attach themselves to their supports.

**Ten'sor pă'lati** (L. tightener of the palate).—One of the muscles of the palate.

**Ten'sor tar'si** (L. tightener of the tarsal cartilage of the eye).—One of the small muscles of the eyelids.

**Ten'sor troch'leæ** (L. tightener of the pulley).—A small occasional muscle of the eyelids.

**Ten'sor vagi'næ fe'moris** (L. tightener of the sheath of the femur).—A muscle passing from the ilium to the femur.

**Ten'tacle** (L. *tentāre*, to touch, feel).—The name given to the long finger-like processes which surround the mouth in some Invertebrata, and which are used in feeling and touch.

**Tentacul'i'tera** (L. *fēro*, I. bear, and *tentacle*).—A group of the Infusoria possessing tentacles.

**Tentacul'i'ferous lobes** (L. *fēro*, I. bear, and *tentacle*).—The lobes which bear the tentacles in the Tetrabranchiate Cephalopoda.

**Tento'rium cerebel'li** (L. tent of the cerebellum).—The name given to the process of dura mater which separates the cerebellum from the cerebral hemispheres.

**Terebră'tulidæ** (L. *terebra'tio*, a boring).—A family of the Brachiopoda.

**Tē'rēs ma'jor** (L. *tērēs*, rounded; *major*, greater).—A muscle passing from the scapula to the humerus.

**Tē'rēs mī'nor** (L. *tērēs*, rounded ; *minor*, smaller).—A muscle passing from the scapula to the humerus.

**Ter'gal facet'** (L. *tergum*, the back).—The dorsal, smooth, anterior surface of each somite in the Crustacea, on which the posterior part of each previous somite moves in flexion and extension of the abdomen.

**Ter'gum** (L. the back).—The dorsal part of the carapace in the Crustacea.

**Test** } (L. *testa*, a shell).—A term applied to the calcareous **Test'a** } covering of sea urchins, &c. The outer coat of the seed of a plant.

**Tes'tis** (L. a testicle).—The gland which secretes the spermatozoa.

**Testudi'nea** (L. *testūdō*, *testūdīnis*, a tortoise).—A group of the Chelonia which comprises the land tortoises.

**Tē'tanus** (Gr. *tētanos*, tension, from *teino*, I stretch).—The condition of sustained contraction of muscular fibre.

**Tetrabranchia'ta** (Gr. *tētras*, four ; *branchia*, a gill).—A group of the Cephalopoda having four gills.

**Tetradac'tyle** (Gr. *tētras*, four ; *daktylos*, a finger or toe).—Having four digits.

**Tetra'merous** (Gr. *tētras*, four ; *mēros*, a part).—Consisting of four portions.

**Thālāmencē'phalon** (Gr. *thalamos*, a bed, couch ; *enkephalon*, the brain).—The “inter-brain,” comprising the thalami optici, pineal gland, pituitary body, and third ventricle.

**Thālāmus op'ticus** (L. optic couch).—The name of each of two structures in the side-walls of the third ventricle of the brain, from which the fibres of the optic tract partly arise.

**Thalas'sa-col'lida** (Gr. *thalassa*, the sea ; *kolla*, glue).—A group of Protozoa.

**Thau'motrope** (Gr. *thauma*, a wonder ; *trēpo*, I turn).—An instrument in which figures in series of different positions are painted near the circumference of a disc, and the reflections of these, being looked at in a mirror through openings in a card revolving with them, are seen in the form of figures, each of which appears to perform the whole movement represented in stages on the disc.

**The'ca** (Gr. a sheath, envelope).—Applied to the synovial sheath of a tendon. Also the name given to the calcareous cup in some of the Actinozoa.

**The'codont** (Gr. *thēkē*, a sheath ; *ōdous*, *ōdontos*, a tooth).—Having the teeth lodged in alveoli; applied to the extinct Protorosauria, a group of the Lacertilia.

**Thely'tokous** (Gr. *thelutokos*, producing females).—A term applied to those females in the Insecta which produce only female young.

**Thē'nar** (Gr. *thēnar*, the palm of the hand).—The name given to the fleshy eminence which forms the ball of the thumb.

**Therapeu'tics** (Gr. *therapeuo*, I cure).—The branch of medical science which treats of the application of remedies and the curing of diseases.

**Thorā'cic** (Gr. *thōrax*, a breastplate).—Relating to the thorax or chest. The ventral fins of Teleostean fishes are said to be *thoracic* in position when they are placed immediately behind the pectoral fins.

**Thorā'cica** (Gr. *thōrax*, a breastplate).—A group of Cirripede Crustacea having limbs attached to the *thoracic* somites, while those of the abdomen are only rudimentary.

**Tho'rax** (Gr. *thōrax*, a breastplate).—The chest. The upper division of the trunk in the Vertebrata; the second division of the body in the Arthropoda.

**Thy'mus** (Gr. *thumos*, heart or soul).—The name given to a gland situate in early life above the base of the heart in man and other mammalia, but which wastes with advancing age.

**Thy'ro-hy'al** (Gr. *thureos*, a shield; *hyoid bone*).—The name given to two ossifications of the hyoid apparatus in the lower Vertebrata, which correspond with the great cornua of the hyoid bone in man.

**Thy'ro-hy'oid arch**.—The third facial arch in the foetus; it corresponds with the first true branchial arch of fishes and amphibia.

**Thy'ro-hy'oid membrane**.—A membrane passing from the thyroid cartilage of the larynx to the hyoid bone.

**Thy'ro-hy'oid muscles**.—The name given to a pair of muscles passing from the thyroid cartilage to the hyoid bone.

**Thy'roid** (Gr. *thureos*, a shield; *eidos*, shape).—The name given to the largest cartilage of the larynx; also to a ductless gland situated upon the front and sides of the upper part of the trachea.

**Thysanop'tera** (Gr. *thusanos*, a tassel; *pterōn*, a wing).—A group of small winged insects living chiefly in flowers; called also *Physopoda*.

**Thysanu'ra** (Gr. *thusanos*, a tassel; *oura*, a tail).—A family of Ametabolous insects.

**Tibia** (L. a flute).—The large inner bone of the crus, which in man forms the shin-bone. Also the fourth joint of the leg in the Insecta.

**Tibia'lē**.—A bone of the tarsus which articulates with the tibia.

**Tibiālis anti'cus** (L. anterior tibial).—A muscle passing from the tibia to the metatarsus.

**Tibiālis posti'cus** (L. posterior tibial).—A muscle passing from the tibia and fibula to the tarsus.

**Tibiālis sēcun'dus** (L. *tibia*, a flute, the shin-bone; *sēcundus*, following the first).—An occasional muscle passing from the back of the tibia to the capsule of the ankle-joint.

**Tibio-fasciālis anti'cus** (L. *tibia*, the shin-bone; *fasciātim*, in bundles; *anticus*, anterior).—A small occasional muscle of the lower part of the tibia.

**Tinamomor'phæ** (*tinamōn*, the native South-American word for these birds).—A group of birds which comprises the Tinamous birds.

**Tomen'tum cē'rēbri** (L. *tomentum*, a flock of wool, hair, &c.).—The name given to the inner flocculent surface of the pia mater.

**Tone** } (Gr. *tōnos*, tightening).—A term applied to the **Toni'city** } state of continuous partial contraction of muscles, as the *tone* or *tonicity* of the small arteries, maintained by the influence of the vaso-motor nerves.

**Ton'sillar**.—The name given to a small branch of the facial artery which supplies the tonsil.

**Tonsilli'tic**.—The name given to certain small branches of the glossopharyngeal nerve which supply the tonsils.

**Ton'sils** (L. *tonsillæ*).—Two glandular bodies, one on each side of the fauces.

**Tor'cular Herō'phili** (L. *torcular*, a wine or oil press).—The name given to the confluence of the venous sinuses of the dura mater of the brain.

**Tör'üla** (L. diminutive of *törus*, a bed or bolster).—The yeast-plant.

**Tör'rus angūlā'ris** (L. angular knot).—A long narrow plate to which the interambulacral pieces are attached in the Ophiuridea.

**Toxodon'tia** (Gr. *toxon*, a bow; *odous*, *odontos*, a tooth).—An order of mammals containing only the extinct *Toxodon*, which has the grinder teeth greatly bowed.

**Trabē'cula** (L. a little rafter).—Applied to the processes which radiate inwards from the fibrous coat of the spleen and

lymphatic glands, and form the framework for the stroma of those organs. Also to two pairs of plates in the foetus from which the parts of the skull above and in front of the mouth are developed.

**Trabs cérēbri** (L. beam or rafter of the cerebrum).—Another name for the corpus callosum of the brain.

**Trachē'a** (Gr. *trachus*, rough).—The windpipe in the Vertebrata. Also applied to the respiratory tubes which are distributed through the body in some insects.

**Trache'lo-acrōmiālis** (Gr. *trachēlos*, the neck; *akron*, the summit; *omos*, the shoulder).—A muscle which in some Vertebrata passes from the cervical vertebræ to the scapula.

**Trache'lo-mas'toid** (Gr. *trachēlos*, the neck).—A muscle passing from the neck to the mastoid process of the skull.

**Trachēobran'chiae** (Gr. *trachēa*, the windpipe; *branchia*, a gill).—The name given to the respiratory organs of some aquatic insect larvæ, which consist of tubes similar to the *tracheæ* of some insects.

**Trac'tus intermē'dio-laterālis** (L. intermediate lateral tract).—The name given to a small group of cells in the spinal cord.

**Trac'tus spirālis foraminulen'tus** (L. *tractus*, a tract; *spirālis*, spiral; *forāmen*, an opening, window; *lentus*, tough).—A furrow in the cochlea in which the cochlear branches of the auditory nerve lie.

**Tragu'lidæ** (Gr. *tragos*, a goat).—A group of the Ruminantia.

**Tra'gus** (Gr. *tragos*, a goat).—The eminence in front of the opening of the external auditory canal; so named because sometimes possessing hairs like a goat's beard.

**Transversālis abdo'minis** (L. transverse of the abdomen).—A muscle passing from the lower ribs to the pubis.

**Transversālis cervī'cis** (L. transverse of the neck).—A muscle passing from the anterior dorsal vertebræ to the transverse processes of the cervical vertebræ.

**Transversālis men'ti** (L. transverse of the chin).—A small occasional muscle passing below the chin to the neck.

**Transversālis pē'dis** } (L. transverse of the foot).—A muscle **Transver'sus pē'dis** } which in man and the apes is inserted in the hallux and in the metatarsals of the foot.

**Transver'sus nu'chæ** (L. transverse of the neck).—An occasional pair of muscles found in the region of the neck in man.

**Transver'sus or'bitæ** (L. transverse of the orbit).—A muscle occasionally found in man, which passes across the upper surface of the eyeball.

**Transver'sus perinæ'i** (L. transverse of the perinæum).—A muscle which arises from the inner surface of the pubic arch, and unites with its fellow of the opposite side.

**Træpē'zium** (Gr. *trapezion*, a geometrical figure, from *trapeza*, a table or board).—The name of one of the bones of the carpus.

**Træpē'zius** (Gr. *trapezion*, a geometrical figure).—A large muscle passing from the back of the head, the neck, and dorsal vertebrae to the scapula and clavicle.

**Træ'pezoid** (Gr. *træpeza*, a table; *eidos*, shape).—The name of one of the carpal bones.

**Trēmā'toda** (Gr. *trēma*, *trēmatos*, a pore).—A group of the Invertebrata placed by Huxley in the division named by him Trichoscolices.

**Triangulā'ris öris** (L. triangular of the mouth).—A muscle of the mouth, also named *depressor anguli öris*.

**Triangulā'ris ster'ni** (L. triangular of the sternum).—One of the muscles of the sternum which is a continuation of the *transversalis abdominis*.

**Trī'ceps bra'chii** } (L. three-headed muscle of the arm).  
**Trī'ceps exten'sor cu'biti** } —A large muscle of the dorsal aspect of the fore limb.

**Triche'cidæ** (Gr. *trichetus*, a walrus).—A group of the Pinnipedia which comprises the Walruses.

**Trī'choysts** (Gr. *thrix*, *trichos*, hair; *kustis*, a bladder).—Minute rod-like bodies from which cilia proceed in some Infusoria.

**Trī'chophores** (Gr. *thrix*, *trichos*, hair; *phōreo*, I bear).—Sacs in the integument of the Polychæta from which stiff hair-like appendages spring.

**Trīchop'tera** (Gr. *thrix*, *trichos*, hair; *ptēron*, a wing).—A group of the Insecta comprising the caddis-flies.

**Trichosco'lices** (Gr. *thrix*, *trichos*, hair; *skolēx*, a worm).—A division of the Invertebrata proposed by Huxley to include the Trematoda, Turbellaria, Rotifera, Cestoidea, and Hirudinea, all of which possess cilia.

**Trīcu'spid** (L. *trīa*, three; *cuspis*, a pointed extremity).—Having three cusps, as the *tricuspid valve* between the right auricle and right ventricle of the heart.

**Trīda'ctyle** (L. *trīa*, three; Gr. *daktylos*, a finger or toe).—Having three digits.

**Trīfa'cial**.—The name sometimes given to the fifth pair of nerves because they arise by three pairs of roots.

**Trigō'minal** } (L. three at a birth).—The name of the fifth pair  
**Trigō'mini** } of nerves; so called because they arise by three  
 pairs of roots.

**Trigō'nē** (Gr. a triangle).—A small triangular surface in the bladder which is devoid of rugæ.

**Trilobita** (Gr. *treis*, three; *lōbos*, a lobe).—A group of extinct Crustacea, the bodies of which were composed of three lobes.

**Trionȳchoi'dea** (Gr. *trionux*, a tortoise; *eidos*, shape).—A group of the Chelonia which comprises the *soft* or *mud* tortoises.

**Triplobla'stic** (Gr. *triplōos*, triple; *blastos*, a germ).—A term applied to those ova in which the blastoderm splits into three layers.

**Trī'vium** (L. a place where three roads meet).—The name given to the three anterior ambulacra of the Echinidea.

**Tro'chal disc** (Gr. *trōchos*, anything round, a hoop).—The oral disc in the Rotifera which is fringed with long cilia.

**Trochan'ter** (Gr. *trochanter*, a word signifying turning).—The name given to two processes (*major* and *minor*) of the upper part of the femur. Also the second joint of the leg in the Insecta.

**Trō'chlea** (Gr. *trōchilia*, a pulley).—The name given to that part of the humerus which articulates with the ulna, because shaped like a pulley. Also to the fibro-cartilaginous ring which is attached to the frontal bone, and through which the tendon of the superior oblique muscle of the eye passes.

**Trō'chlear**.—The name given to the fourth pair of cerebral nerves which supply the upper oblique (*trochleares*) muscles of the eyes.

**Troglody'tes** (Gr. *troglodutēs*, one who lives in holes).—A genus of the Anthropomorpha.

**Trō'phic** (Gr. *trēpho*, I nourish).—Connected with nutrition.

**Trun'cus arteriō'sus** (L. arterial trunk).—The part of the heart from which in some Vertebrata the arteries spring.

**Tū'ber annulā're** (L. annular swelling).—Another name for the *Pons Varolii*—which see.

**Tū'ber cal'cis** (L. swelling of the ankle).—The posterior extremity of the calcaneum.

**Tū'ber cinē'reum** (L. grey swelling).—A layer of grey matter in the base of the cerebrum.

**Tū'ber coch'leæ** (L. swelling of the cochlea).—The projection of the first turn of the cochlea into the tympanum of the ear.

**Tū'ber olfactō'rium** (L. olfactory swelling).—The middle root of the olfactory nerves.

**Tuber'cula quadrigē'mina** (L. *tuberculum*, a small swelling; *quadrigeminus*, four at a birth).—Another name for the *corpora quadrigemina* of the brain.

**Tuber'culum**.—A small eminence or swelling, as the *tuberculum pharyngeum*, which is the tubercle from which the median muscular band attaching the pharynx to the skull springs.

**Tūberō'sity** (L. *tuber*, a lump, swelling).—A thick prominence of bone, usually giving attachment to muscles.

**Tū'buli rec'ti** (L. straight tubules).—The straight portion of the uriniferous tubules of the kidneys.

**Tū'buli sēmēn'i'feri** (L. semen-bearing tubules).—The small convoluted tubules in which the seminal fluid is secreted.

**Tū'buli urin'i'feri** (L. urine-bearing tubules).—The small tubes of the kidney which collect the urine.

**Tubulidentā'ta** (L. *tūbulus*, dim. of *tūbus*, a pipe, tube; *dens*, *dentis*, a tooth).—A group of the insectivorous Edentata, the single genus of which has teeth which are traversed by a number of canals.

**Tu'nica abdominā'lis** (L. abdominal tunic).—A strong membrane which in some Mammalia contributes to the support of the viscera.

**Tu'nica adventī'tia** (L. foreign or outside tunic).—A name applied to the external coat of the arteries.

**Tu'nica albugī'nea** (L. white tunic).—The outer capsule of the testicle.

**Tu'nica-chō'rio-capillā'tis** (L. capillary choroid coat).—The inner layer of the choroid coat of the eye.

**Tu'nica choroī'dea** (L. choroid tunic).—Choroid coat of the eye.

**Tu'nica granulō'sa** (L. granular tunic).—The granular lining of the Graafian follicles of the ovary.

**Tu'nica prō'pria** (L. special tunic).—The membranous lining of the semicircular canals.

**Tu'nica vaginā'lis** (L. ensheathing tunic).—A serous sac enclosing the testicle.

**Tu'nica vaginā'lis o'culi** (L. ensheathing tunic of the eye).—A sheath of fascia surrounding the eyeball.

**Tu'nica vasculō'sa test'is** (L. vascular tunic of the testicle).—A layer of delicate and highly vascular areolar tissue which surrounds the testicle.

**Tunica'ta** (L. *tūnica*, a tunic).—Another name for the *Ascidioidea*—which see.

**Tu'payæ** (*tupaia*, the name given by the natives of Sumatra, where and in India these animals are found).—A genus of the Insectivora which approach the Lemurs.

**Turbellā'ria** (L. *turbo*, I disturb).—A group of free-swimming organisms belonging to the division Trichoscolices, and so named because of the currents they cause in the water in which they live by means of their cilia.

**Tur'binated** (L. *turbo*, a turning round).—The name given to certain twisted bones entering into the formation of the nasal and olfactory chambers.

**Turnicimor'phæ**.—A group of birds.

**Tūta'mina ȳ'cūli** (L. defences of the eye).—A name sometimes applied to the eyelids.

**Tylō'poda** (Gr. *tulos*, a swelling, pad ; *pous*, *pōdos*, a foot).—The Camels.

**Tym'panum** (L. a drum).—The middle ear. Also a chamber in the syrinx of birds.

**Typhlō'pidae** (Gr. *tuphlos*, unseen ; *pous*, *pōdos*, a foot).—A group of the Ophidia.

**Typh'losole** (Gr. *tuphlos*, unseen).—A thick fold of the wall of the intestine, which in the Lamellibranchiata and in the earth-worms projects into the interior of the intestinal cavity, and which is not seen from the exterior.

**Ty'rosin** (Gr. *tūros*, cheese).—A nitrogenous compound resulting from the decomposition of proteid substances.

## U.

**Ul'na** (Gr. *ōlenē*, the elbow).—The bone of the antebrachium, the proximal end of which forms the elbow in man.

**Ul'nar**.—Relating to the ulna, as the *ulnar artery*.

**Ulna're**.—A bone of the carpus which articulates with the ulna.

**Ulotrī'chi** (Gr. *oulos*, woolly ; *thrix*, *trichos*, hair).—The division of the human race which embraces all those varieties which have crisp, woolly hair.

**Umbili'cal cord** (L. *umbilicus*, the navel).—The navel string. The cord which connects the foetus with the placenta.

**Umbili'cal ve'sicle** (L. *umbilicus*, the navel).—The vesicle which contains that portion of the vitellus which serves as nutriment for the embryo.

**Umbilicus** (L. the navel).—The point in the middle line of the abdomen at which the somatopleures of the foetus unite. Also the name given to two apertures (*superior* and *inferior*) in the calamus of a bird's feather.

**Um'bo** (pl. *umbōnēs*, L. a boss).—The beak of a bivalve shell. Also a depression in the integument of the larva of an Echinoderm.

**Un'ciform** (L. *uncus*, a hook ; *formis*, shape).—One of the bones of the carpus, also termed *uncinatum* and *hamatum*.

**Un'cinate** (L. *uncus*, a hook).—Hooked. Applied to a process of the ethmoid bone.

**Un'gual phalan'ges** (L. *unguis*, a nail).—The terminal phalanges of the digits, so called because provided with nails or claws.

**Un'guēs** (L. *unguis*, a nail).—Applied to the pointed claws which terminate the legs in the Insecta.

**Un'guis** (L. a nail).—The narrow stalk by which the alæ of a papilionaceous flower are attached to the corolla.

**Un'gulata** (L. *ungula*, a hoof).—A group of the Non-deciduate Mammalia.

**Ungu'ligrade** (L. *ungula*, a hoof; *gradus*, a step).—Applied to those animals which walk upon hoofs, which consist of the ungual phalanges encased in thick horny sheaths.

**Unipo'lar** (L. *unus*, one; *polus*, the pole).—Having a single pole. Applied to those ganglionic nerve cells which have but one radiating process.

**U'nivalve** (L. *unus*, one; *valva*, folding doors).—Applied to those Mollusca which have shells composed of a single piece.

**U'rachus** (Gr. *ouron*, urine : *ēcho*, I hold).—One of the ligaments of the bladder formed by the remaining constricted portion of the allantois of the foetus.

**Ure'a** (Gr. *ouron*, urine).—A nitrogenous substance found abundantly in the urine, and produced by the waste of nitrogenous material both in the food and in the tissues.

**Urē'ter** (Gr. *ourētēr*, the urinary duct).—A duct leading from the kidney to the urinary bladder.

**Urē'thra** (Gr. *ourēthra*).—The canal leading from the urinary bladder to the exterior.

**Urī'na cī'bi** (L. urine of food).—The name given to the urine passed immediately after food has been taken.

**Urī'na po'tus** (L. urine of drink).—The name given to the urine passed immediately after a quantity of fluid has been drunk.

**Uri'na san'guinis** (L. urine of the blood).—A term applied to the urine evacuated at times when neither food nor drink has been recently taken, as, for instance, that evacuated upon rising in the morning.

**Urin'ferous tubes** (L. urine-bearing tubes).—The tubules in which the urine is secreted, and by which it is poured into the calyces of the ureters.

**Uro-car'diac process** (Gr. *oura*, the stern; *kardia*, the stomach).—A process of the cardiac piece of the stomach in some Crustacea.

**Uro-car'diac tooth** (Gr. *oura*, the stern; *kardia*, the stomach).—A process of the pre-pyloric ossicle in the stomach of some Crustacea.

**U'ro-chord** (Gr. *oura*, the stern, tail; *chordē*, a string).—The central axis in the Ascidioidea.

**Urō'dela** (Gr. *oura*, the tail; *dēlos*, distinct).—A group of the Amphibia having a distinct and often long tail.

**Uroga'stric** (Gr. *oura*, the stern, tail; *gastēr*, the stomach).—The name given to two lobes of the carapace in the Brachyura.

**Urohy'al** (Gr. *oura*, the stern; *hyoid bone*).—The posterior ossification of the hyoidean arch in fishes.

**Uropoiē'tic** (Gr. *ouron*, urine; *poiētikos*, making).—A system of organs in the Invertebrata which are concerned in eliminating the nitrogenous waste from the blood.

**Uropy'gial** (Gr. *oura*, the tail; *pugaios*, the buttocks).—The name given to a gland which in many birds secretes an oily fluid spread by the bird over its feathers, the gland being situated in the integument which covers the coccyx.

**Urosa'cral** (Gr. *oura*, the tail; L. *sacrus*, sacred, the sacrum).—A term applied to the ankylosed caudal vertebræ in birds.

**U'rostyle** (Gr. *oura*, a tail; *stulos*, a style, pen).—A bony prolongation of the vertebral column in some fishes and amphibia.

**U'tero-gesta'tion** (L. *uterus*, womb; *gestatio*, the being carried in a litter).—The development of the embryo within the womb.

**U'terus** (L. the womb).—The cavity in which the embryo remains during development.

**U'terus masculi'nus** (L. male womb).—A portion of the male genital organs which in some Vertebrata represents the aborted uterus.

**U'tricle** } (L. *utriculus*, a small bag).—The larger of the two  
**Utr'iculus** } sacs of the vestibule of the ear.  
**U'tricle of male urethra** (L. *utriculus*, a small bag).—Another  
 name for the *prostatic vesicle*.  
**U'vula** (L. a little grape).—The pendent body at the back of  
 the soft palate ; also a small projection in the cerebellum.

## V.

**Vă'cuole** (L. *vacuo*, I make empty).—A small clear space in a  
 protoplasmic cell, and in the protoplasm of some Protozoa.  
**Vagi'na** (L. a sheath).—The passage by which the uterus  
 communicates with the exterior. Applied also to the  
 lower sheathing portion of the leaves of some plants.  
**Vagi'na cellulo'sa** (L. cellular sheath).—A name sometimes  
 applied to the general external covering of nerve trunks.  
**Vagi'nal arteries** (L. *vagina*, a sheath).—The branches of the  
 hepatic artery which supply the walls of the ducts, vessels,  
 and Glisson's capsule of the liver.  
**Vagi'nal plex'us** (L. *vagina*, a sheath ; *plexo*, I twine).—The  
 nerves supplied to the vagina.  
**Vagi'nal process** (L. *vagina*, a sheath).—A process of the  
 temporal bone.  
**Vagi'nal syno'vial mem'branes** (L. *vagina*, a sheath).—A term  
 applied to those synovial membranes which form sheaths  
 for the tendons.  
**Vagi'nal veins** (L. *vagina*, a sheath).—Small veinlets in the  
 liver which return the blood from the fibrous coat of the  
 liver to the branches of the portal vein.  
**Va'gus** (L. wandering).—The tenth cerebral nerve, so called  
 because of its wide distribution.  
**Val'le'cula** (L. a little valley).—A fossa of the cerebellum.  
 Also the fold of the derma in which the root of the nail is  
 implanted.  
**Val'vulae conniven'tes** (L. little winking valves).—The trans-  
 verse permanent folds of the mucous membrane of the  
 small intestine.  
**Vas a'berrans** (L. wandering vessel).—A long narrow tube lead-  
 ing from the lower part of the epididymis, and terminating  
 blindly.  
**Vas dë'ferens** (L. bearing-to vessel).—The excretory duct of the  
 testis.

**Va'sa spirā'lē** (L. spiral vessel).—A small blood-vessel of the internal ear.

**Va'sa afferen'tia** (L. afferent vessels).—The lymphatic vessels which enter the lymphatic glands.

**Va'sa ambulacra'lia ca'vi** (L. hollow ambulacral vessels).—Diverticula of the circular ambulacral vessel in the Ophiuridea.

**Va'sa brē'via** (L. short vessels).—Small blood-vessels supplied to the stomach.

**Va'sa efferen'tia** (L. efferent or carrying-out vessels).—Small vessels passing from the vascular network of the testicle to the epididymis. Also applied to the lymphatic vessels which pass out of the lymphatic glands.

**Va'sa lac'tea** or **chyli'fera** (L. lacteal or chyle-bearing vessels).—The absorbent vessels of the small intestine.

**Va'sa rec'ta** (L. straight vessels).—The straight vessels of the testicle which pass from the seminiferous tubules to the vascular network. Also small straight blood-vessels which lie between the uriniferous tubes of the kidney.

**Va'sa vaso'rūm** (L. vessels of the vessels).—The system of small blood-vessels which supply the coats of the arteries, veins, and lymphatics.

**Va'sa vortico'sa** (L. vortex-like vessels).—Small veins of the choroid coat of the eye.

**Vas'cular** (L. *vasculum*, a little vessel).—Having or belonging to vessels; full of vessels.

**Va'so-mo'tor nerves** (L. vessel-moving nerves).—Nerves derived from the sympathetic system, and governed by a *vaso-motor* nerve-centre in the medulla oblongata, which are supplied to the muscular coat of the small blood-vessels.

**Va'so-peritone'al ve'sicle**.—A sac developed in the Holothuridea from the archenteron, and which subsequently gives rise to the ambulacral vessels and the peritoncum.

**Vas'tus exter'nus** (L. *vastus*, enormous; *externus*, external).—A large muscle of the thigh.

**Vas'tus inter'nus** (L. *vastus*, enormous; *internus*, internal).—A large muscle of the thigh.

**Vein** (L. *vena*, a vessel containing blood).—A vessel which returns blood to the heart.

**Ve'liger** (L. *vēlum*, a sail; *gēro*, I bear).—A term applied to the embryo of some Mollusca, which is provided with a richly ciliated disc-like body.

**Ve'lum** (L. a sail).—The ciliated disc-like fold of the integument with which some embryo Molluscs are provided.

**Ve'lum interpō'situm** (L. the interposed veil).—A term applied to the choroid membrane of the brain which is situated between the fornix and optic thalami.

**Ve'lum medulla'rē ante'rius** (L. anterior medullary veil).—Another name for the valve of Vieussens of the brain.

**Ve'lum pen'dulum pălati** (L. the pendulous veil of the palate).—The posterior part of the soft palate.

**Ve'lum, poste'rior medul'lar'y** (L. *velum*, a curtain).—A laminated structure in the cerebellum comparable to the valve of Vieussens.

**Ve'na a'zygos ma'jor** (L. the great unyoked vein).—A vein on the right side of the body, commencing in the lumbar region, and emptying itself into the superior vena cava.

**Ve'na ca'va** (L. hollow vein).—The name of each of the two large veins which bring the blood back to the right side of the heart; the *vena cava superior* bringing the blood from the head and upper extremities, the *vena cava inferior* returning blood from the trunk and lower extremities.

**Ve'na cor'dis mag'na** (L. the large vein of the heart).—The large vein which returns the blood from the substance of the heart to the right auricle.

**Ve'na hemia'zygos** (L. half-unyoked vein).—The smaller azygos vein; a vein which, commencing on the left side of the trunk, answers to the large azygos vein on the right side, into the upper part of which it opens.

**Ve'na par umbilic'al'is** (L. equal umbilical vein).—A small vein which sometimes opens a connexion between the external iliac and the portal vein.

**Ve'na por'tæ** (L. the vein of the gate, or portal vein).—The large vein which carries venous blood, (derived from the stomach, intestines, spleen, and pancreas,) to the liver; so called because it enters the *porta* or gate of the liver.

**Ve'na salvatel'la.**—A name formerly given to a small vein by which the posterior ulnar vein commences.

**Ve'na abdомina'lēs ante'riō'rēs** (L. anterior abdominal veins).—Large branches of the iliac veins which in the Reptilia run along the anterior wall of the abdominal cavity.

**Ve'na advehēn'tes** (L. *vena*, a vein; *advehō*, to carry to a place).—Small veins which in the foetus carry blood into the liver from the ductus venosus.

**Ve'na ba'sis vertebra'rūm** (L. veins of the bodies of the vertebræ).—The veins contained in the canals within the bodies of the vertebræ.

**Ve'nae co'mites** (L. companion veins).—A term applied to two or more veins running in company with an artery.

**Ve'nae cor'dis mi'nimæ** (L. small veins of the heart).—The small veins which return the blood from the substance of the heart.

**Ve'nae Galeni** (L. veins of Galen).—Two veins formed by the union of branches from the choroid plexus of the brain.

**Ve'nae par'væ** (L. small veins).—A number of small veins, commencing upon the anterior surface of the right ventricle, and passing separately into the right auricle of the heart.

**Ve'nae re'vehen'tes** (L. *vēna*, a vein; *rēvēho*, to carry back).—Small veins which in the foetus return blood from the liver to the ductus venosus.

**Venesec'tion** (L. *vēna*, a vein; *seco*, I cut).—The process of bleeding or blood-letting by opening a vein.

**Ve'nter of scapula** (L. *venter*, the belly; *scapula*, the shoulder-blade).—The fossa on the anterior surface of the scapula.

**Ven'tral** (L. *venter*, the belly).—Towards the belly; opposite to dorsal.

**Ven'tricle** (L. *ventrīculus*, a little belly).—The name given to the chambers in the heart which discharge the blood into the arteries, and also to certain cavities in the brain.

**Ventri'culus** (L. a little stomach or belly).—The cavity of the "cup" in the Porifera. A part of the alimentary canal in insects.

**Vermi'cular** (L. *vermis*, a worm).—Worm-like. Movement in waves, such as are seen in the movement of a worm.

**Ver'mis** (L. a worm).—The median division of the cerebellum.

**Ver'tebra** (L. *vertō*, to turn).—The name of each of the bony segments of which the spinal column is made up.

**Ver'tebra denta'ta** (L. toothed vertebra).—Another name for the second cervical vertebra or axis which possesses the odontoid process.

**Ver'tebra prōminens** (L. prominent vertebra).—A name sometimes given to the seventh cervical vertebra in man, on account of its prominent neural spine.

**Ver'tebrata** (L. *vertebra*, a bone of the spinal column).—The great division of the animal kingdom, comprising all those animals possessing a vertebral column.

**Veru'mon'tanem** (L. *vērus*, true; *mons*, a mountain).—The prominent fold of the mucous membrane in the prostatic portion of the urethra.

**Vesi'ca urina'ria** (Latin).—The urinary bladder.

**Vē'sicle** (L. *vēscula*, a little bladder).—Applied to any small bladder-like body, as the *umbilical vesicle* which contains the food yolk.

**Ve'sico-uterine folds**.—Folds of peritoneum extending from the uterus to the urinary bladder.

**Vēsi'cula prostā'tica** (L. the prostatic vesicle).—A small body in the prostate gland considered to be a rudimentary uterus; called also *sinus pocularis*.

**Vēsi'culæ semina'les** (L. seminal vesicles).—The receptacles of the semen, in which it lies for a longer or shorter period before being discharged.

**Ves'tibule of the aorta** (L. *vestibulum*, an entrance).—A small cavity in the ventricle of the heart adjoining the root of the aorta.

**Ves'tibule of the ear** (L. *vestibulum*, an entrance).—The part of the labyrinth of the ear into which the semicircular canals open.

**Ves'tibule of the vul'va** (L. *vestibulum*, an entrance).—The angular interval between the nymphæ.

**Vestibulum** (L. an entrance).—The chamber in the Polyzoa into which the gullet and anus open.

**Vexil'lum** (L. a vane).—The shaft of a bird's feather; also the large uppermost petal at the back of a papilionaceous flower.

**Vibra'cula** (L. *vibrare*, to quiver).—Whip-like appendages with which the cells of some Polyzoa are provided.

**Vibris'sæ** (L. *vibro*, I shake).—The hairs growing inside the nostrils; so named because they vibrate when we breathe.

**Vi'dian artery**.—A small branch of the inferior maxillary artery which occupies the Vidian canal.

**Vi'dian canal**.—A small canal in the internal pterygoid plate of the sphenoid bone.

**Vi'dian nerve**.—A small nerve occupying the Vidian canal.

**Vil'lus** (L. *villus*, shaggy hair).—A conical projection of the mucous membrane of the small intestine, containing blood-vessels and lacteals.

**Vin'cula accesso'ria ten'dinum** (L. *vinculum*, a fetter; *accessio*, an increase).—Accessory fibres of the sheath of the flexor tendon of the fingers.

**Vis a fron'tē** (L. force in front).—A pulling force by which the flow of a fluid is assisted, as in the ascent of the sap in plants, where evaporation from the leaves acts as a *vis a fronte*.

**Vis a ter'go** (L. force behind).—A pushing force by which the flow of a fluid is assisted, as in the ascent of the sap in plants, where the absorption of moisture by the spongiolies of the rootlets assists in pushing on the sap in its upward course.

**Vis nervo'sa** (L. nervous force).—A term applied to signify the property of nerves whereby they conduct impressions.

**Vis'cera** (L. the entrails).—Applied to all the organs contained within the body.

**Vis'cus** (L. *viscus*, the inside of the body).—Any internal organ of the body.

**Vitella'rium** (L. *vitellus*, yolk of an egg).—A gland which in some Turbellaria is connected with the female generative organs, and secretes a special yolk-like material.

**Vitell'i'genous cells** (L. *vitellus*, yolk; Gr. *gennao*, I produce).—Cells, secreted by the ovarioles of some insects, which probably supply nutriment to the growing ova.

**Vi'telline duct** (L. *vitellus*, yolk).—The duct by which in early foetal life the yolk sac communicates with the embryonic sac of the ovum.

**Vi'telline mem'brane** (L. *vitellus*, yolk).—The membrane which encloses the yolk of the ovum.

**Vitel'lus** (L. yolk of an egg).—The general contents of the ovum.

**Vitreous** (L. *vitrum*, glass).—The name given to the humour which occupies the posterior chamber of the eye, on account of its glassy appearance.

**Vivi'parous** (L. *vivo*, I live; *pario*, I bring forth).—Applied to those animals which bring forth their young alive.

**Volar artery** (L. *vola*, the palm of the hand).—A branch of the radial artery distributed to the hand.

**Vo'mer** (L. a ploughshare).—A bone of the skull, so named because of its fancied resemblance to a ploughshare.

**Vul'va**.—A general term for all the external parts of the female generative organs.

## W.

**Willis, circle of.**—Anastomosis of the branches of the vertebral and internal carotid arteries in the skull.

**Wolfian bodies.**—Temporary organs in the foetus from which the urinary and reproductive organs are developed.

**Wormian bones.**—Bones frequently found in the sutures of the skull.

## X.

**Xan'thocroi** (Gr. *xanthos*, yellow, auburn ; *chrōma*, colour).—A group of the human race which includes the Slavonians, Teutons, Scandinavians, and fair Celts.

**Xiphiplas'tron** (Gr. *xiphos*, a sword ; *plastos*, moulded, formed).—The fourth lateral piece of the plastron in the Chelonia.

**Xi'phisternum** (Gr. *xiphos*, a sword ; *sternon*, the breast).—The posterior portion of the sternum, also termed in man the *ensiform cartilage*.

**Xi'phoid cartilage** (Gr. *xiphos*, a sword ; *eidos*, shape).—Sword-like. Applied to the *xiphisternum*.

**Xiphosu'ra** (Gr. *xiphos*, a sword ; *oura*, a tail).—An order of the *Crustacea* only represented at the present day by the king-crabs, which have long sword-like tails.

## Z.

**Zoan'thodeme** (Gr. *zōōn*, an animal ; *anthos*, a flower).—The whole group of zooids in the *Actinozoa* produced by the budding of a single polype.

**Zo'ea** (Gr. *zōē*, life).—The larval form of some *Crustacea*.

**Zo'na denti'culata**.—Toothed belt.

**Zo'na glomerūlo'sa** (L. *zōna*, a girdle ; *glōmērōsus*, to make into a ball).—The outer layer of the cortical part of the supra-renal bodies.

**Zo'na orbicula'ris** (L. *orbicular* zone).—A thick broad band of circular fibres in the capsular membrane of the hip-joint.

**Zo'na pectina'ta**.—Comb-like belt.

**Zo'na pellū'cida** (L. bright transparent belt).—The membrane enclosing the yolk of the unimpregnated ovum.

**Zo'na reticula'ris** (L. net-like belt).—The inner layer of the cortical part of the supra-renal bodies.

**Zona'ria** (L. *zōna*, a maiden's girdle, belt).—A division of the *Mammalia*, so called from the shape of the placenta.

**Zo'nula of Zinn** (L. little belt of Zinn).—The folded zone formed by the suspensory ligament of the lens of the eye.

**Zoogla'sa** (Gr. *zōōn*, an animal ; *glīa*, glue).—The term applied to the resting, motionless stage of the *Bacteria*, in which they are embedded in gelatinous material.

**Zo'oid** (Gr. *zōōn*, an animal ; *eidos*, shape).—A term applied to each of the individuals which make up a compound organism.

**Zo'ölogy** (Gr. *zōōn*, an animal ; *lōgos*, a discourse).—The branch of Biology which treats of animal life.

**Zo'ophyte** (Gr. *zōōn*, an animal ; *phūton*, a plant).—A term sometimes applied to animals which resemble plants, such as corals, sea-anemones, sponges, &c.

**Zo'ospores** (Gr. *zōōs*, alive ; *spōra*, a seed).—The name given to spores which are provided with cilia, and are therefore capable of spontaneous movement.

**Zo'otomy** (Gr. *zōōn*, an animal ; *temno*, I cut).—The art of dissecting animals.

**Zygan'trum** (Gr. *zūgos*, a yoke ; *antron*, a cave).—A fossa on the posterior face of the arches of each of the vertebræ of the Lacertilia, into which the zygosphene of the succeeding vertebra fits.

**Z. apō'physis** (Gr. *zūgos*, a yoke ; *apophuo*, I grow).—The yoke-pieces or articulations of the vertebræ.

**Zygocar'diac os'sicle** (Gr. *zūgos*, a yoke ; *kardia*, the stomach).—The name of each of a pair of pieces in the skeleton of the stomach of some Crustacea.

**Zy'goma** } (Gr. *zūgos*, a yoke).—The arch formed by  
**Zygomā'tic arch** } the malar bone and the zygomatic process  
                           of the temporal bone of the skull.

**Zygomā'tic fos'sa**.—The lower part of the fossa bridged over by the *zygomatic arch*.

**Zygomā'tici muscles**.—Two muscles (*major* and *minor*) arising from the *zygomatic arch*.

**Zygosphēne** (Gr. *zūgos*, a yoke ; *sphēn*, a wedge).—A process on the anterior face of each of the vertebral arches in the Lacertilia, which articulates with the *zygantrum* of the preceding arch.

**Zy'gospore** (Gr. *zūgos*, a yoke ; *spōra*, a seed).—A spore produced by the union of buds from two adjacent hyphae in the process of conjugation by which some fungi multiply.

THE END.



A CATALOGUE OF  
NEW & POPULAR WORKS,

AND OF BOOKS

Suitable for Presents and School Prizes.



PUBLISHED BY  
**GRIFFITH AND FARROW,**  
(successors to NEWBERRY AND HARRIS),  
WEST CORNER OF ST. PAUL'S CHURCHYARD,  
LONDON.

Fourth thousand.

**ROSAMOND FANE; or, The Prisoners of St. James.** By MARY and CATHERINE LEE, Authors of "Lucy's Campaign," "The Oak Staircase," &c. Post 8vo. Cloth, price, 3s. 6d.; gilt edges, 4s.

"The eventful story of Charles the First's children very well told."—*Athenaeum.*

Third Thousand.

**CLEMENT'S TRIAL AND VICTORY; or, Sowing and Reaping.** By M. E. B. With Illustrations by E. LUPTON. New Edition. Post 8vo. Cloth, price 3s. 6d.; gilt edges, 4s.

Fourth Thousand.

**LITTLE LISETTE, the Orphan of Alsace.** By M. E. B. With Illustrations. New Edition. Royal 16mo. Cloth, price 1s. 6d.

New Edition.

**GRANNY'S STORY BOX.** By the Author of "Our White Violet," &c. With 20 Illustrations. Super-royal 16mo. Price 2s. 6d.

New and Cheaper Edition.

**TWELVE STORIES OF THE SAYINGS AND DOINGS OF ANIMALS.** By Mrs. R. LEE. With Illustrations by J. W. ARCHER. Royal 16mo. Cloth. Uniform with "Little Lisette," &c. Price 1s. 6d. *Preparing.*

New and Cheaper Edition.

**LONG EVENINGS; or, Stories for my Little Friends.** By EMILIA MARRYAT. Illustrated by JOHN ABSOLON. Uniform with the above in size and price. *Preparing.*

New and Cheaper Edition.

**LIVE TOYS; or, Anecdotes of our Four-legged and other pets.** By EMMA DAVENPORT. Illustrated by HARRISON WEIR. Uniform with the above in size and price. *Preparing.*

**BISHOP KEN'S APPROACH to the HOLY ALTAR.** With an Address to Young Communicants. New and Cheaper Edition. Limp cloth, 8d.; superior cloth, red edges, 1s.; French morocco, limp, 1s. 6d.; calf or morocco, limp, 3s. 6d.; russia, limp, 4s. 6d. With Photographs 2s. extra.

\* Clergymen wishing to introduce this Manual can have specimen copy, with prices for quantities, post free for six stamps, on application.

Revised and Enlarged Edition.

**TRUE BLUE; or, The Life and Adventures of a British Seaman of the Old School.** By W. H. G. KINGSTON. With Illustrations by JOHN GILBERT. Imperial 16mo. Cloth, price, 6s.; bevelled boards, gilt edges, 7s. 6d.

New Edition, with Illustrations.

**JOHN DEANE OF NOTTINGHAM: His Adventures and Exploits. A Tale of the Times of William of Orange and Queen Anne.** By W. H. G. KINGSTON. Crown 8vo. Cloth, price 5s.; gilt edges, 5s. 6d.

New and Enlarged Edition.

**PETER THE WHALER: His Early Life and Adventures in the Arctic Regions.** By W. H. G. KINGSTON. With Illustrations by E. DUNCAN. Small crown 8vo. Cloth, price 3s. 6d.; gilt edges, 4s.

A New Edition of

**MEMORABLE BATTLES IN ENGLISH HISTORY: Where Fought, Why Fought, and Their Results, with the Military Lives of the Commanders.** By W. H. DAVENPORT ADAMS, Author of "Neptune's Heroes," &c. New and thoroughly Revised Edition. With Frontispiece and Plans of Battles. Crown 8vo., 2 vols. Cloth *Preparing.*

**THE SEASONS: A Poem by the Rev. O. RAYMOND LL.B.** Author of "The Art of Fishing on the principle of avoiding cruelty," "Paradise" and other Poems. Foolscap Octavo, with Four Illustrations. Price 2s. 6d.

### **MASTERPIECES OF ANTIQUE ART.**

From the celebrated collections in the Vatican, the Louvre, and the British Museum. By STEPHEN THOMPSON, Author of "Old English Homes," "Old Masters," &c. Twenty-five Examples in Permanent Photography. Super-Royal Quarto. Elegantly bound, price Two Guineas.

"The photographs . . . are excellent . . . the essays written in an agreeable style. Much of what Mr. Thompson has written is certainly pleasant, not uninteresting to read, and much of what he has photographed is worthy to rank under the title he has given to all."—*Times*.

"Cannot be otherwise than of large value to all who practise, study, or love art."—*Art Journal*.

**THE THREE ADMIRALS, and the Adventures of Their Young Followers.** By W. H. G. KINGSTON, Author of "The Three Lieutenants," "The Three Midshipmen," etc. Illustrated by J. R. WELLS and C. J. STANILAND. Imp. 16mo. Price 6s. Bevelled boards, gilt edges, 7/6.

"Will be especially welcome to readers who remember 'The Three Lieutenants' and 'The Three Midshipmen.' Mr. Kingston is master of his subject. Not only affords amusement, but conveys incidentally a large amount of information."—*Pall Mall Gazette*.

"Will be warmly welcomed by youthful readers."—*Truth*.

"All boys must be delighted with Mr. Kingston's new volume."—*Tablet*.

**WILTON OF CUTHBERT'S: A Tale of Undergraduate Life Thirty Years Ago.** By the Rev. H. C. ADAMS, M.A., Vicar of Dry Sandford, Berks, Author of "Hair-breadth Escapes," "Schoolboy Honour," etc. With Six Illustrations by J. LAWSON. Crown 8vo. Price 5s., gilt 5s. 6d.

"University life is described with the minuteness of personal knowledge."—*Daily News*.

"A pleasant story for young readers."—*Athenaeum*.

"More interesting than many a romance of the season."—*School Board Chronicle*.

"A lively, graphic, and entertaining picture of the social aspect of University life."—*Oxford Chronicle*.

**BRITANNIA: A Collection of the Principal Passages in Latin Authors that refer to this Island.** With Vocabulary and Notes. By THOMAS S. CARZER, Head Master of Queen Elizabeth's Hospital, Bristol, Author of "One Thousand Arithmetical Tests," etc. Illustrated with a Map and 33 Woodcuts. Crown 8vo. Price 3s. 6d.

"The task is admirably done."—*School Guardian*.

"A very useful book."—*School Board Chronicle*.

"A very happy notion carefully carried out."—*Educational Times*.

**CAST ADRIFF: The Story of a Waif.** By MRS. HERBERT MARTIN, Author of "Bonnie Lesley," etc. Eight Illustrations by MISS C. PATERSON. Small Post 8vo. Price 8s. 6d., gilt edges 4s.

"Mrs. Martin writes in a bright natural manner always appreciated by young people."—*Pall Mall Gazette*.

"A charming story."—*Rock*.

"Thoroughly fitted for a gift-book."—*Graphic*.

"Pleasantly told."—*Pictorial World*.

**LITTLE MAY'S FRIENDS. Or, Country Pets and Pastimes.** By ANNIE WHITEMAN. Ten Illustrations by HARRISON WEIR. Small Post 8vo. Price 8s. 6d., gilt edges 4s.

"An interesting and well-written story."—*Athenaeum*.

"Girls will delight in the book."—*Scotsman*.

"Pleasantly written, and inspired by the love of animals which most children share."—*Daily News*.

"The tale is one of the best all through."—*Nonconformist*.

**TALENT IN TATTERS: or some vicissitudes in the Life of an English Boy.** By HORN WRAYTHE. With Eight Illustrations. Small Post 8vo. Price 3s. 6d., gilt edges 4s.

"This interesting little story."—*Pall Mall Gazette*.  
 "A pure, pretty story."—*John Bull*.  
 "A pretty enough story."—*Athenaeum*.  
 "The story is well told, and capitally sustained."—*School Board Chronicle*.

**TEN OF THEM; or, the Children of Danehurst.** By Mrs. R. M. BRAY, Author of "Jack a Nory," "Petite," etc. With twelve Illustrations by A. H. COLLINS. Super-Royal 16mo. Price 2s. 6d.

"A boys' book for which we avow a weakness. Full of humour and kindness and the joy of adventurous boyhood."—*Saturday Review*.  
 "A lively story."—*Christian World*.  
 "A pretty and ingenious story."—*Tatler*.

**'THOSE UNLUCKY TWINS!'** By ANNETTE LYSTER. With Ten Illustrations by JOHN PROCTOR. Super-Royal 16mo. Third Thousand. Price 2s. 6d.

"A spirited narrative."—*Saturday Review*.  
 "A very pretty story. These young people are amusing and loveable through all their scrapes, and we are sorry to close the book upon them."—*Pall Mall Gazette*.  
 "Told with thorough humour and naturalness. One that old boys and girls with grey hairs on their heads may read and laugh over."—*Nonconformist*.

**THE SECRET OF WREXFORD; or Stella Desmond's Search.** By ESTHER CARR, Author of "Madelon." With Eight Illustrations by Miss C. PATERSON. Super-Royal 16mo. Price 2s. 6d.

"An uncommonly pretty story for little girls."—*Truth*.  
 "Cannot fail to interest girl readers."—*Aunt Judy*.  
 "The heroine is a charming little girl."—*Tatler*.

**SYLVIA'S NEW HOME. A Story for the Young.** By Mrs. J. F. B. FIFTH. Cr. 8vo. Price 3s. 6d.

"Particularly fit for children."—*Athenaeum*.  
 "A pretty little tale . . . We may thoroughly recommend the book."—*Academy*.  
 "Well calculated to interest the young."—*Daily News*.  
 "A simple and pathetic story."—*Scotsman*.

## Miscellaneous Books.

**Bishop Ken's Approach to the Holy Altar.** With an Address to Young Communicants. Limp Cloth, 8d.; superior cloth, red edges, 1s.; French morocco, limp, 1s. 6d.; calf or morocco limp, 3s. 6d.; russia limp, 4s. 6d. With Photographs 2s. extra. New and Cheaper Edition.

\*\* Clergymen wishing to introduce this Manual can have specimen copy, with prices for quantities, post free for six stamps, on application.

**An Illuminated Certificate of Confirmation and First Communion.** Price 2d.

**A New "In Memoriam" Card.** Beautifully printed in silver or gold. Price 2d.

\*\* A reduction made on taking a quantity of the above cards.

**Short and Simple Prayers, with Hymns for the Use of Children.** By the Author of "Mamma's Bible Stories," "Fanny and her Mamma," "Scripture Histories for Children," etc. Sixteenth Thousand. Price 1s.

**Book of Remembrance (The) for EVERY DAY IN THE YEAR.** With blank space for recording Birthdays, Weddings, &c., &c. Beautifully printed in red and black. Imp. 32mo, 2s. 6d. gilt edges. "A charming little memorial of love and friendship, and happily executed as conceived. For a Birthday or other Anniversary nothing could be prettier or more appropriate."—Bookseller.

"Beautifully got up"—Leeds Mercury.

\*\* This may also be had in various styles of binding, at prices ranging from 3s. 6d. to 10s., or with twelve beautiful Photographs from 5s. upwards.

**Emblems of Christian Life.** Illustrated by W. HARRY ROGERS, in One Hundred Original Designs, from the Writings of the Fathers, Old English Poets, &c. Printed by Whittingham, with Borders and Initials in Red. Square 8vo. price 10s. 6d. cloth elegant, gilt edges; 21s. Turkey morocco antique.

"This splendid book is a marvel of beautiful drawing and printing. The emblems have been so grouped as to give, as far as possible, one consecutive series of thoughts."—Literary Churchman.

"A book full of deep thought, and beautiful, yet quaint, artistic work."—Art Journal.

"Printed throughout in black letter, with red initial letters, it is by far the most complete and beautiful specimen we ever have seen."—Examiner.

**Golden Words for Children, FROM THE BOOK OF LIFE.** In English, French, and German. A set of Illuminated Cards in Packet. Price 1s., or bound in cloth interleaved, price 2s. 6d. gilt edges.

**Asmodeus, the Man Hater: an Eastern Tale by OLIVER GOLDSMITH.** With Illustrations and an Editorial Introduction. Quarto. Price 2s.

*Miscellaneous Books—continued.*

**A Catechism of the Thirty-Nine Articles of Religion.** By J. W. Second Edition, corrected and enlarged. Cloth, price 2s. 6d.

**Caxton's Fifteen O's and other Prayers.** Printed by command of the Princess Elizabeth, Queen of England and France, and also of the Princess Margaret, mother of our Sovereign Lord the King. By WM. CAXTON. Reproduced in Photo-Lithography by S. Ayling. Quarto, bound in parchment. New and cheaper edition, price 6s.

**Plaiting Pictures.** A NOVEL PASTIME BY WHICH CHILDREN CAN CONSTRUCT AND RECONSTRUCT PICTURES FOR THEMSELVES. Four Series in Fancy Coloured Wrappers. Oblong 4to, price 1s. each.  
*First Series.*—Juvenile Party—Zoological Gardens—The Gleaner.  
*Second Series.*—Birds' Pic-nic—Cats' Concert—Three Bears.  
*Third Series.*—Blind Man's Buff—Children in the Wood—Snow Man.  
*Fourth Series.*—Grandfather's Birthday—Gymnasium—Playroom.

**The Headlong Career and Woeful Ending of Precocious Piggy.** By THOMAS HOON. Illustrated by his Son. Printed in colours. Fifth and cheaper Edition. Fancy wrapper, 4to, price 1s. mounted on cloth 2s.  
 “The illustrations are intensely humorous.”—*The Critic.*

**Poems.** By E. L. FLOYER. Fcap. 8vo, price 2s. 6d.  
*“Well fitted for a gift book.”—Churchman's Magazine.*  
*“Interesting and instructive.”—Penny Post.*

**The Day Dreams of a Sleepless Man:** being a series of Papers recently contributed to the *Standard*, by FRANK IVES SCUDAMORE, Esq., C.B. Post 8vo, price 3s. 6d.  
*“Decidedly clever and full of good humour.”—Graphic.*

**Mission from Cape Coast Castle to Ashantee.** WITH A DESCRIPTIVE ACCOUNT OF THAT KINGDOM. By the late T. EDWARD BOWDICH, Esq. New Edition, with preface by his daughter, MRS. HALE. With map of the route to Coomassie. Post 8vo. Price 5s.

**Joan of Arc AND THE TIMES OF CHARLES THE SEVENTH.** By MRS. BRAY, Author of “Life of Stothard,” etc. Post 8vo, price 7s. 6d.  
*“Readers will rise from its perusal, not only with increased information, but with sympathies awakened and elevated.”—Times.*

**The Good St. Louis and His Times.** By MRS. BRAY. With Portrait. Post 8vo, price 7s. 6d.  
*“A valuable and interesting record of Louis' reign.”—Spectator.*

**Sagas from the Far East, or KALMOUK AND MONGOLIAN TALES,** With Historical Preface and Explanatory Notes by the Author of “Household Stories from the Land of Hofer,” “Patranas,” etc. Post 8vo, price 9s.  
*“Wonderful narratives.”—Daily News.*

## STANESBY'S ILLUMINATED GIFT BOOKS.

*Every page richly printed in Gold and Colours.*

**The Bridal Souvenir.** New Edition, with a Portrait of the Princess Royal. Elegantly bound in white morocco, price 21s. "A splendid specimen of decorative art, and well suited for a bridal gift."

**The Birth-Day Souvenir.** A Book of Thoughts on Life and Immortality. Price 12s. 6d. cloth; 18s. morocco antique.

**Light for the Path of Life;** from the Holy Scriptures. Small 4to, price 12s. cloth; 16s. calf, gilt edges; 18s. morocco antique.

**The Wisdom of Solomon;** from the Book of Proverbs. Small 4to, price 14s. cloth elegant; 18s. calf; 21s. morocco antique.

**The Floral Gift.** Price 14s. cloth elegant; 21s. morocco extra.

**Shakespeare's Household Words.** With a Photograph from the Monument at Stratford-on-Avon. New and Cheaper Edition, Price 6s. cloth elegant; 10s. 6d. morocco antique. "An exquisite little gem, fit to be the Christmas offering to Titania or Queen Mab."

**Aphorisms of the Wise and Good.** With a Photographic Portrait of Milton. Price 6s. cloth elegant; 10s. 6d. Morocco antique.

### WORKS BY JOHN TIMBS, F.S.A.

**Notabilia, or CURIOUS AND AMUSING FACTS ABOUT MANY THINGS.** Explained and Illustrated by JOHN TIMBS, F.S.A. Post 8vo, 6s. "There is a world of wisdom in this book."—*Art Journal.*

**Ancestral Stories and Traditions of Great Families.** Illustrative of English History. With Frontispiece. Post 8vo, price 7s. 6d. "An interesting and well written book."—*Literary Churchman.*

**Strange Stories of the Animal World.** A Book of Curious Contributions to Natural History. Illustrations by ZWECKER. Second Edition. Post 8vo, gilt edges, price 6s. "Will be studied with profit and pleasure."—*Athenaeum.*

### PICTURE BOOKS FOR EVERY CHILD.

*Bound in Elegant Covers, Royal 4to, price 3s. 6d. each plain; 7s. 6d. coloured; 10s. 6d. mounted on cloth and coloured.*

**The Attractive Picture Book.** A New Gift Book from the Old Corner, containing numerous Illustrations by eminent Artists.

**The Favourite Picture Book.** With several Hundred Illustrations from Drawings by J. ABSOLON, H. K. BROWNE (Phiz), J. GILBERT, T. LANDSEER, J. LEECH, J. S. PRAETOR, H. WEIR, &c.

*Six Shillings each, cloth elegant, with Illustrations.*

Kingston's (W. H. G.) *The Missing Ship, or Notes from the Log of the "Ouzel Galley,"* (bevelled boards, gilt edges, 7s. 6d.)

" *The Three Admirals, and the Adventures of their Young Followers,* (bevelled boards, gilt edges, 7s. 6d.)

" *Three Lieutenants; or, Naval Life in the Nineteenth Century,* (bevelled boards, gilt edges, 7s. 6d.)

" *Three Commanders; or, Active Service Afloat in Modern Times.* Second Edition. (Bevelled boards, gilt edges, 7s. 6d.)

" *Three Midshipmen (The).* New Edition, with 24 Illustrations by G. THOMAS, PORTCH, etc. (Bevelled boards, gilt edges, 7s. 6d.)

" *Hurricane Harry, or The Adventures of a Naval Officer during the American War of Independence.* (bevelled boards, gilt edges, 7s. 6d.)

" *True Blue; or, The Life and Adventures of a British Seaman of the Old School.* Revised and Enlarged Edition. With Illustrations by JOHN GILBERT. Imperial 16mo. (Price 6s.; bevelled boards, gilt edges, 7s. 6d.)

*Ice Maiden and other Stories.* By HANS CHRISTIAN ANDERSEN. 39 Illustrations by ZWECKER. Gilt edges.

*Journey to the Centre of the Earth.* Authorized Translation. From the French of JULES VERNE. New Edition. With 53 Illustrations. Crown 8vo. (Bevelled bds., gilt edges, 7s. 6d.)

*Little Maids.* Rhymes with Illustrations by Mrs. W. KEMP. Quarto, gilt edges.

"The compositions are charming, simple, and sometimes graceful and forcible—as a book illustrator the artist may take high rank."—*Art Journal.*

*Five Shillings each, Small Post 8vo, cloth elegant; 5s. 6d., gilt edges, with Illustrations by Zwecker, Corbould, Lawson, Priolo, and other eminent Artists.*

*Adventures of Hans Sterk, The South African Hunter and Pioneer.* By LIEUT.-COLONEL DRAYSON, Author of "Tales of the Outspan," "The Gentleman Cadet," etc.

"From first to last, it is full of life and variety, and will also give boys some knowledge of the people of South Africa and their mode of life."—*Nonconformist.*

*Chums: A Story for the Youngsters, of Schoolboy Life and Adventure.* By HARLEIGH SEVERNE, Author of "Little Harry Gwynne." Illustrated by HARRY FURNISS.

Five Shillings each—continued.

**Early Start in Life (The).** By EMILIA MARRYAT NORRIS.

"Mrs. Norris has established her own fame, and her paternity is clearly proved by the 'knack in story telling she inherits from her father.'"—*Art Journal*.

**Gentleman Cadet (The): His CAREER AND ADVENTURES AT THE ROYAL ACADEMY, WOOLWICH.** By LEUT.-COLONEL DRAYTON.

**Gerald and Harry, or THE BOYS IN THE NORTH.** By EMILIA MARRYAT NORRIS.

**Hair-Breadth Escapes, or THE ADVENTURES OF THREE BOYS IN SOUTH AFRICA.** By the Rev. H. C. ADAMS. Second Edition.

**Heroes of the Crusades.** By BARBARA HUTTON. Post 8vo.

"The most romantic history of the Middle Ages, skilfully narrated for the delight and instruction of the young."—*British Quarterly*.

**Home Life in the Highlands.** By LILLIAS GRAEME. With Illustrations by C. O. MURRAY. Post 8vo, price 5s.

"A charming book; the real highland atmosphere breathes throughout; the descriptions have all the effect of being taken from the life."—*Athenaeum*.

**Household Stories from the land of Hofer, or POPULAR MYTHS OF TIROL, INCLUDING THE ROSE GARDEN OF KING LARYN.**

**John Deane of Nottingham, His ADVENTURES AND EXPLOITS: a Tale of the Times of William of Orange and Queen Anne.** By W. H. G. KINGSTON. New Edition.

"Full of exciting adventures, capitally told."—*Literary Churchman*.

**Out on the Pampas, or THE YOUNG SETTLERS.** By G. A. HENTY, Author of "The Young Franc-Tireurs," etc.

**Wilton of Cuthbert's: A TALE OF UNDERGRADUATE LIFE THIRTY YEARS AGO.** By the Rev. H. C. Adams.

**Patranas, or SPANISH STORIES, LEGENDARY AND TRADITIONAL.** By the Author of "Household Stories."

**Swift and Sure, or THE CAREER OF TWO BROTHERS.** By ALFRED ELWES.

"A clever, well written book."—*British Quarterly*.

**Tales of the Saracens.** By BARBARA HUTTON.

**Tales of the White Cockade.** By BARBARA HUTTON.

"A most pleasant and well written narrative of the Stuarts in their exile."—*Times*.

"A history as romantic as any novel."—*Saturday Review*.

**Young Franc-Tireurs (The), AND THEIR ADVENTURES DURING THE FRANCO-PRUSSIAN WAR.** Second Edition. By G. A. HENTY, Special Correspondent of the *Standard*.

"Abounds with thrilling adventures and hairbreadth escapes, and when once begun will be eagerly read to its close."—*Daily Review*.

*Feap. 8vo, Illustrated, price Five Shillings, gilt edges.*

Ewes' (A.) *Frank and Andrea, or Forest Life in Sardinia.*  
 " *Guy Rivers, or A Boy's Struggles in the Great World.*  
 " *Luke Ashleigh, or School Life in Holland.*  
 " *Ferd Blake, or A Boy's Perils in Corsica and Monte  
Cristo.*

*Neptune's Heroes, or The Sea Kings of England, from Hawkins  
to Franklin.* By W. H. DAVENPORT ADAMS.

"We trust Old England may ever have writers as ready and able to interpret to her children the noble lives of her greatest men."—*Athenaeum.*

*Extraordinary Nursery Rhymes;* New, yet Old. Translated from the Original Jingle into Comic Verse by One who was once a Child. 60 Illustrations. Small 4to, price 5s.

*Little Gipsy (The).* By ELIE SAUVAGE. Translated by ANNA BLACKWELL. Profusely illustrated by ERNST FRÖLICH. Small 4to, price 5s.; extra cloth, *gilt edges*, 6s.

*Merry Songs for Little Voices.* Words by Mrs. BRODERIP. Music by THOMAS MURRAY. With 40 Illustrations. Feap. 4to, price 5s.

*Stories from the Old and New Testaments.* By the Rev. B. H. DEAPER. With 48 Engravings. Fifth edition, price 5s.

*Trimmer's History of the Robins.* Written for the Instruction of Children on their treatment of Animals. With 24 beautiful Engravings from Drawings by HARRISON WEIR. Seventh Thousand. Small 4to, price 5s. *gilt edges.*

"It is as fresh to-day as it was half a century ago."—*Art Journal.*

"The illustrations by Harrison Weir will tend to raise it even higher in the estimation of others besides the inmates of the nursery."—*The Times.*

*Fair Shillings and Sixpence each, cloth elegant, with  
Illustrations; or with gilt edges, 5s.*

*Alda Graham; and her Brother Philip.* By EMILIA MARRYAT NORRIS.

*Book of Cats (The): a Chit-chat Chronicle of Feline Facts and Fancies.* By CHARLES H. ROSS.

*Casimir, the Little Exile.* By CAROLINE PEACHEY.

*Favourite Fables in Prose and Verse.* With 24 beautiful Illustrations from Drawings by HARRISON WEIR. Small 4to.

"True to the name. They are well got up, tastefully bound, and above all things illustrated by the graceful pencil of our old friend Harrison Weir."—*The Times.*

"The drawings are wonderfully graphic and appropriate."—*The Queen.*

*Four Shillings and Sixpence each—continued.*

**Fiery Cross (The), or THE VOW OF MONTROSE.** By BARBARA HUTTON. Illustrations by J. Lawson.

**Mandarin's Daughter (The): A STORY OF THE GREAT TAIPING REBELLION.** By SAMUEL MOSSMAN.

**Modern British Plutarch (The), or LIVES OF MEN DISTINGUISHED IN THE RECENT HISTORY OF OUR COUNTRY FOR THEIR TALENTS, VIRTUES, AND ACHIEVEMENTS.** By W. C. TAYLOR, LL.D.

**Oak Staircase, (The) or THE STORIES OF LORD AND LADY DESMOND a Narrative of the Times of James II.** By MARY and CATHERINE LEE. Second Edition.

**Tales and Legends of Saxony and Lusatia.** By W. WESTALL.

**Theodora: a Tale for Girls.** By EMILIA MARYAT NORRIS.

**Zipporah, the Jewish Maiden.** By M. E. BEWSHER.

*Three Shillings and Sixpence plain; or coloured plates and gilt edges, Four Shillings and Sixpence, Super Royal 16mo, cloth elegant, with Illustrations by Harrison Weir, Phiz, Pinwell, Tom Hood, Keyl, etc.*

**Aunt Jenny's American Pets.** By CATHERINE C. HOPELY. Author of "Life in the South," etc. Small Post 8vo.

"Miss Hopley writes lightly and brightly, and knows how to make knowledge interesting."—*Times*.

"Full of anecdotes relating to American birds. A good deal is told of life in the Southern States. The book will instruct while it amuses."—*Tablet*.

**Broderip (Mrs.) Crosspatch, the Cricket, and the Counterpane: a Patchwork of Story and Song.**

„ **My Grandmother's Budget of STORIES AND VERSES.**

„ **Tales of the Toys. TOLD BY THEMSELVES.**

„ **Tiny Tadpole, AND OTHER TALES.**

**Cousin Trix, AND HER WELCOME TALES.** By GEORGIANA CRAIK.

**Cosmorama: THE MANNERS AND CUSTOMS OF ALL NATIONS OF THE WORLD DESCRIBED.** By J. ASPIN.

**Distant Homes, or THE GRAHAM FAMILY IN NEW ZEALAND.** By Mrs. I. E. AYLMER.

**Early Days of English Princes.** By Mrs. RUSSELL GRAY. New and enlarged edition.

**Echoes of an Old Bell, AND OTHER TALES OF FAIRY LORE.** By the Hon. AUGUSTA BETHELL.

**Facts to Correct Fancies, or SHORT NARRATIVES OF REMARKABLE WOMEN.**

**Faggots for the Fireside, or TALES OF FACT AND FANCY.** By PETER PARLEY.

*Three Shillings and Sixpence each—continued.*

Fairy Land, or RECREATION FOR THE RISING GENERATION, in Prose and Verse. By THOMAS and JANE HOOD. Illustrated by T. HOOD, Jun. Second edition.

"These Tales are charming. Before it goes into the Nursery, we recommend all grown-up people should study 'Fairy Land.'"*—Blackwood.*

Feathers and Fairies, or STORIES FROM THE REALM OF FANCY. By the Hon. AUGUSTA BETHELL.

Garden (The), or FREDERICK'S MONTHLY INSTRUCTION FOR THE MANAGEMENT AND FORMATION OF A FLOWER GARDEN. With Illustrations by SOWERBY. 6s. coloured.

Hacco the Dwarf, or THE TOWER ON THE MOUNTAIN, and other Tales. By LADY LUSHINGTON.

Happy Home (The), or THE CHILDREN AT THE RED HOUSE. By LADY LUSHINGTON. Second Edition.

Helen in Switzerland. By the Hon. AUGUSTA BETHELL.

Holidays among the Mountains, or SCENES AND STORIES OF WALES. By M. BETHAM EDWARDS.

Lightsome and the Little Golden Lady. Written and Illustrated by C. H. BENNETT. Twenty-four Engravings. Fcap. 4to.

"The work of a man who is sure to put some touch of a peculiar genius into whatever he does."*—Pall Mall Gazette.*

Nursery Times, or STORIES ABOUT THE LITTLE ONES. By an Old Nurse.

Play Room Stories, or HOW TO MAKE PEACE. By GEORGINA M. CRAIK.

Peep at the Pixies (A), or LEGENDS OF THE WEST. By MRS. BRAY.

Scenes and Stories of the Rhine. By M. BETHAM EDWARDS.

Seven Birthdays (The), or, THE CHILDREN OF FORTUNE. By KATHLEEN KNOX.

Starlight Stories, TOLD TO BRIGHT EYES AND LISTENING EARS. By FANNY LABLACHE.

Stories of Edward, AND HIS LITTLE FRIENDS.

Tales of Magic and Meaning. Written and Illustrated by ALFRED CROWQUILL.

Visits to Beechwood Farm. By CATHARINE COWPER.

*Three Shillings and Sixpence plain, in cloth elegant, or with gilt edges, price 4s., with Illustrations by eminent Artists.*

*Almeria's Castle, or MY EARLY LIFE IN INDIA AND ENGLAND.* By LADY LUSHINGTON.

*Cast Adrift, the Story of a Wolf.* By Mrs. A. H. MARTIN.

*Clement's Trial and Victory, or SOWING AND REAPING.* By M. E. B. Author of "Little Lisette," &c. Third Thousand.

*Great and Small; SCENES IN THE LIFE OF CHILDREN.* Translated, with permission, from the French of Mdlle. Laroque, by Miss HARRIET POOLE. With 61 Illustrations by the famous French Artist, BERTALL.

*Grey Towers; or AUNT HETTY'S WILL.* By M. M. POLLARD.

*Isabel's Difficulties, or LIGHT ON THE DAILY PATH.* By M. R. CAREY.

*Joachim's Spectacles: A LEGEND OF FLORENTHAL.* By M. & C. LEE.

*Kingston's (W.H.G.) Fred Markham in Russia, or, THE BOY TRAVELLERS IN THE LAND OF THE Czar.* Third Thousand.

.. *Manco the Peruvian Chief.* Third Edition.

.. *Mark Seaworth; a Tale of the Indian Ocean.* Sixth Thousand.

.. *Peter the Whaler; his EARLY LIFE AND ADVENTURES IN THE ARCTIC REGIONS.* Eighth Thousand.

.. *Salt Water, or NEIL D'ARCY'S SEA LIFE AND ADVENTURES.*

"With the exception of Capt. Marryat, we know of no English author who will compare with Mr. Kingston as a writer of books of nautical adventure."—*Illustrated News.*

*Lee (Mrs.) Aneodotes of the Habits and Instincts of Animals.* Fifth Edition. Post 8vo. Illustrated by WEIR.

.. *Aneodotes of the Habits and Instincts of Birds, Reptiles, and Fishes.* Fourth Edition. Illustrated by WEIR.

.. *Adventures in Australia, or THE WANDERINGS OF CAPTAIN SPENCER IN THE BUSH AND THE WILDS.* Third Edition.

.. *The African Wanderers, or THE WANDERINGS OF CARLOS AND ANTONIO;* embracing interesting Descriptions of the Manners and Customs of the Western Tribes, and the Natural Productions of the Country. Fifth Edition, Fcap. 8vo.

*Little May's Friends, or COUNTRY PETS AND PASTIMES.* By ANNIE WHITTEM. Illustrated by HARRISON WEIR.

*Louisa Broadhurst; or FIRST EXPERIENCES.* By A. M.

*Three Shillings and Sixpence each—continued.*

My School Days in Paris. By MARGARET ST. JEUNE. With Illustrations. Small Post 8vo.

Meadow Lea, or THE GIPSY CHILDREN. Fcap. 8vo.

Millicent and Her Cousins. By the Hon. AUGUSTA BETHELL. Author of "Helen in Switzerland," etc. Second Edition.

"A capital book for girls. Bright, sparkling, and full of life, yet never transgressing limits of good taste and probability."—*The Guardian.*

North Pole (The); AND HOW CHARLIE WILSON DISCOVERED IT. By the Author of "Realms of the Ice King," etc.

Our Old Uncle's Home; AND WHAT THE BOYS DID THERE. By Mother CAREY. With Illustrations by WALTER CRANE.

Rosamond Fane, or THE PRISONERS OF ST. JAMES. By MARY and CATHERINE LEE. Authors of "Lucy's Campaign," "The Oak Staircase," etc. Fourth Thousand.

"The eventful story of Charles the First's children, very well told."—*Athenaeum.*

The Triumphs of Steam, or STORIES FROM THE LIVES OF WATT, ARKWRIGHT, AND STEPHENSON. Fifth Edition.

The Whispers of a Shell, or STORIES OF THE SEA. By FRANCES FREELING BRODERIP.

Wild Roses, or SIMPLE STORIES OF COUNTRY LIFE. By FRANCES FREELING BRODERIP.

*Three Shillings and Sixpence each.*

Berries and Blossoms: a Verse Book for Young People. By T. WESTWOOD, Author of "The Quest of the Sangerall." Second Edition. Imperial 16mo, price 3s. 6d.

Catechism of the Thirty-Nine Articles of Religion (A). By J. W. Second Edition, Corrected and Enlarged. Cloth.

Bible Illustrations, or A DESCRIPTION OF MANNERS AND CUSTOMS PECULIAR TO THE EAST. By the Rev. B. H. DRAPER. Fourth Edition. Revised by DR. KITTO.

British History Briefly Told (The), AND A DESCRIPTION OF THE ANCIENT CUSTOMS, SPORTS, AND PASTIMES OF THE ENGLISH.

Clara Hope, or THE BLADE AND THE EAR. By Miss MILNER. Frontispiece by BIRKET FOSTER.

*Three Shillings and Sixpence each—continued.*

**Four Seasons (The); A Short Account of the Structure of Plants, being Four Lectures written for the Working Men's Institute, Paris. With Illustrations. Imperial 16mo.**

“Distinguished by extreme clearness and tems with information of a useful and popular character.”—*Guardian*.

**Family Bible Newly Opened (The); WITH UNCLE GOODWIN'S ACCOUNT OF IT. By JEFFREYS TAYLOR. Fcap. 8vo.**

“A very good account of the Sacred Writings, adapted to the taste, feelings, and intelligence of young people.”—*Educational Times*.

**Glimpses of Nature, AND OBJECTS OF INTEREST DESCRIBED DURING A VISIT TO THE ISLE OF WIGHT. By Mrs. LOUDON. Forty-one Illustrations.**

**History of the Robins (The). By Mrs. TRIMMER. In Words of One Syllable. Edited by the Rev. CHARLES SWETE, M.A.**

**Historical Acting Charades, or AMUSEMENTS FOR WINTER EVENINGS**  
By the Author of “Cat and Dog,” etc. New Edition. Fcap. 8vo.  
“A rare book for Christmas parties, and of practical value.”—*Illustrated News*.

**How to be Happy, or FAIRY GIFTS.**

**Infant Amusements, or HOW TO MAKE A NURSERY HAPPY. With Practical Hints on the Moral and Physical Training of Children. By W. H. G. KINGSTON. Post 8vo.**

“We urge parents most strongly to obtain this book forthwith; we know of no book that can compare with it in practical value. EACH CHAPTER IS WORTH THE PRICE OF THE BOOK.”—*Our Own Fireside*.

**Letters from Sarawak, ADDRESSED TO A CHILD, embracing an Account of the Manners, Customs, and Religion of the Inhabitants of Borneo. By Mrs. M'DOUGALL.**

**Man's Boot (The), AND OTHER STORIES IN WORDS OF ONE SYLLABLE.**  
Illustrations by HARRISON WEIR.

**The Mine, or SUBTERRANEAN WONDERS. An Account of the Operations of the Miner and the Products of his Labours.**

**Might not Right, or STORIES OF THE DISCOVERY AND CONQUEST OF AMERICA.**

**The Modern Sphinx. A Collection of ENIGMAS, CHARADES, REBUSES, DOUBLE AND TRIPLE ACROSTICS, ANAGRAMS, LOGOGRAPHES, METAGRAMS, VERBAL PUZZLES, CONUNDRUMS, etc. Fcap. 8vo, price 3s. 6d.; gilt edges, 4s.**

“A charming book for the long winter nights.”—*Bookseller*.

**Sunbeam; a Fairy Tale. By Mrs. PIETZKER.**

**Sylvia's New Home, a Story for the Young. By Mrs. J. F. B. FIRTH.**

*Three Shillings and Sixpence plain; Five Shillings coloured.*

**Bear King (The):** a Narrative confided to the Marines by JAMES GREENWOOD. With Illustrations by ERNEST GAISER. Small 4to.

**Buzz a Buzz, or THE BASS,** from the German of WILLIAM BUSCH. By the Author of "My Bee Book." With 185 Illustrations.

**Familiar Natural History.** With 42 Illustrations by HARRISON WEIR.

\* \* \* Also, in Two Vols., entitled "British Animals and Birds," "Foreign Animals and Birds." 2s. each, plain; 2s. 6d. coloured.

**Old Nurse's Book of Rhymes, Jingles, and Ditties.** Illustrated by C. H. BENNETT. Third Edition. Ninety Engravings. Gilt edges.

*Three Shillings plain; Four Shillings and Sixpence coloured, gilt edges.*

**Mamma's Morning Gossips, or LITTLE BITS FOR LITTLE BIRDS.** Being Easy Lessons for One Month in Words of One Syllable, and a Story to read for each Week. With 50 Illustrations.

*Three Shillings, or gilt edges, Three and Sixpence.*

**Our Soldiers, or ANECDOTES OF THE CAMPAIGNS AND GALLANT DEEDS OF THE BRITISH ARMY DURING THE REIGN OF HER MAJESTY QUEEN VICTORIA.** By W. H. G. KINGSTON. With Frontispiece. New and Revised Edition. Eighth Thousand. With an account of the ABYSSINIAN EXPEDITION. Fcap. 8vo.

**Our Sailors, or ANECDOTES OF THE ENGAGEMENTS AND GALLANT DEEDS OF THE BRITISH NAVY.** With Frontispiece. New and Revised Edition. Eighth Thousand. Fcap. 8vo.

"These volumes abundantly prove that both our officers and men in the Army and Navy have been found as ready as ever to dare and to do as was dared and done of yore, when led by a Nelson or a Wellington."

**Lucy's Campaign: a Story of Adventure.** By MARY and CATHERINE LEE. Fcap. 8vo. Gilt edges.

**Fruits of Enterprise, EXHIBITED IN THE TRAVELS OF BELZONI IN EGYPT AND NUBIA.** Fourteenth Edition. With Six Engravings by BIRKET FOSTER. Price 3s.

*Two Shillings and Sixpence plain, or Three Shillings and Sixpence coloured and gilt edges, Super Royal 16mo, cloth elegant, with Illustrations by various artists.*

*Adventures and Experiences of Biddy Dorking and of the Fat Frog.* Edited by Mrs. S. C. HALL.

*Alice and Beatrice.* By GRANDMAMMA.

*Amy's Wish, and What Came of It: a Fairy Tale.*

*Animals and their Social Powers.* By MARY TURNER-ANDREWES.

*Cat and Dog, or Memoirs of Puss and the Captain.* Illustrated by WEIR. Tenth Edition.

*Crib and Fly: a Tale of Two Terriers.*

*Discontented Children (The), and how they were CURED.* By M. and E. KIRBY. Third Edition.

*Doll and Her Friends (The); or Memoirs of the Lady Seraphina.* By the Author of "Cat and Dog." Fifth Edition.

*Early Dawn (The), or Stories to THINK ABOUT.* Second Edition.

*Fairy Gifts, or A Wallet of WONDERS.* By KATHERINE KNOX, Author of "Father Time's Story Book."

*Faithful Hound (The): a Story in Verse, founded on Fact.* By LADY THOMAS. Imperial 16mo.

*Funny Fables for Little Folks.* Second Edition.

*Fun and Earnest, or RHYMES WITH REASON.* By D'ARCY W. THOMPSON. Illustrated by CHARLES BENNETT. Imperial 16mo.

*Gerty and May.* Fourth Edition.

"A charming book for children. Though the story is full of fun, the moral is never lost sight of."—*Literary Churchman.*

*By the same Author.*

*Children of the Parsonage.*

*Granny's Story Box.* New Edition. With 20 Engravings.

*Our White Violet.* Fifth Thousand.

*Sunny Days, OR A MONTH AT THE GREAT STOWE.*

*The New Baby.*

*Jack Frost and Betty Snow; with other Tales for Wintry Nights and Rainy Days.* Third Edition.

*Julia Maithland, or, PRIDE GOES BEFORE A FALL.* By M. and E. KIRBY.

*Little Child's Fable Book.* Arranged Progressively in One, Two and Three Syllables. 16 Page Illustrations. 4s. 6d. coloured, gilt edges.

*Two Shillings and Sixpence each—continued.*

**Lost in the Jungle; A TALE OF THE INDIAN MURKIN.** By AUGUSTA MARRYAT.

**Our Home in the Marsh Land, or DAYS OF AULD LANG SYNE.** By E. L. F.

**Neptune: or THE AUTOBIOGRAPHY of a NEWFOUNDLAND DOG.** Odd Stories about Animals, told in Short and Easy Words.

**Tiny Stories for Tiny Readers in Tiny Words.** With Twelve Illustrations by WEIR. Fourth Edition.

**Trottie's Story Book: True Tales in Short Words and Large Type.** Fifth Edition. Eight Illustrations by WEIR.

**Tuppy, or THE AUTOBIOGRAPHY of a DONKEY.** Illustrated by HARRISON WEIR. Fourth Edition.

**Norris (Emilia Marryat.) A Week by Themselves.**

*By the same Author.*

Adrift on the Sea.

Seaside Home.

Children's Pic-Nic (The).

Snowed Up.

Geoffry's Great Fault.

Stolen Cherries.

Harry at School.

What became of Tommy.

Paul Howard's Captivity.

**Scripture Histories for Little Children.** With Sixteen Illustrations by JOHN GILBERT.

CONTENTS:—The History of Joseph—History of Moses—History of our Saviour—The Miracles of Christ.

*Sold separately 6d. each, plain; 1s. coloured.*

**Story of Jack and the Giants.** With Thirty-five Illustrations by RICHARD DOYLE.

**Stories of Julian and His Playfellows.** Written by his MAMMA.

**Tales from Catland.** Dedicated to the Young Kittens of England. By an OLD TABBY. Illustrated by H. WEIR. Seventh Thousand.

**Talking Bird (The), or THE LITTLE GIRL WHO KNEW WHAT WAS GOING TO HAPPEN.** By M. and E. KIRBY. Second Edition.

**Ten of Them, or THE CHILDREN OF DANEHURST.** By Mrs. R. M. BRAY.

**“Those Unlucky Twins!”** By A. LISTER.

**The Secret of Wexford, or STELLA DESMOND'S SECRET.** By ESTHER CARE, Author of “Madelon.”

**Little Tattle; and other Stories for Children.** By the Author of “Little Tales for Tiny Tots,” etc.

*Two Shillings and Sixpence, with Illustrations, cloth elegant, or with gilt edges, Three Shillings.*

**A Child's Influence**, or *KATHLEEN AND HER GREAT UNCLE*. By LISA LOCKYER. Fcap. 8vo.

"It shows how great is the power of a loving child to influence her seniors."—*Western Morning News*.

**Adventures of Kwei, the Chinese Girl**. By the Author of "Little Lisette," "Clement's Trial and Victory," etc.

**Bertrand Du Guesclin, the Hero of Brittany**. By EMILE DE BONNECHOSE. Translated by MARGARET S. JEUNE.

"The high tone of feeling with which it is written makes it specially valuable as an educational book, taking education in the sense of formation of character. All boys will enjoy it for the scenes of adventure and heroism through which it leads them."—*Literary Churchman*.

**Corner Cottage, and Its Inmates, or TRUST IN GOD**. By FRANCES OSBORNE.

**Father Time's Story Book for the Little Ones**. By KATHLEEN KNOX, Author of "Fairy Gifts," &c.

"Charmingly and impressively told."—*Art Journal*.

**From Peasant to Prince, or THE LIFE OF ALEXANDER PRINCE MENSCHIKOFF**. From the Russian by Madame PIETZKER.

"A charming Russian tale, tracing the steps of Menschikoff from the time of his being a poor lad, to his exaltation under Peter the Great."—*Daily Review*.

**William Allair, or RUNNING AWAY TO SEA**. By Mrs. H. WOOD, Author of "The Channings," etc.

"There is a fascination about Mrs. Wood's writings from which neither old nor young can escape."—*Bell's Messenger*.

**Davenport's (Mrs.) Constance and Nellie, or THE LOST WILL**.

" Our Birthdays, AND HOW TO IMPROVE THEM.

" The Happy Holidays, or BROTHERS AND SISTERS AT HOME.

" The Holidays Abroad, or RIGHT AT LAST.

*Two Shillings and Sixpence each.*

**The Book of Remembrance FOR EVERY DAY IN THE YEAR**. With blank spaces for recording Weddings, Birthdays, &c. With Oxford Border Printed in Red. Gilt edges.

**Children of the Olden Time**. By the Author of "A Trap to Catch a Sunbeam." 27 Illustrations. Imperial 16mo.

**The Boy's Own Toy Maker: a Practical Illustrated Guide to the useful employment of Leisure Hours**. By E. LANDELL. With Two Hundred Cuts. Ninth Edition. Royal 16mo.

"A new and valuable form of endless amusement."—*Nonconformist*.

"We recommend it to all who have children to be instructed and amused."—*Economist*.

*Two Shillings and Sixpence each—continued.*

**The Seasons;** a Poem by the Rev. O. RAYMOND, LL.B., Author of “The Art of Fishing on the principle of avoiding cruelty,” “Paradise,” and other Poems. Foolscap Octavo, with Four Illustrations. Price 2s. 6d.

**Spring Time;** or, Words in Season. A Book for Girls. By SIDNEY COX. Third Edition. Small Post 8vo, price 2s. 6d.

**The Girl’s Own Toy Maker, AND BOOK OF RECREATION.** By E. and A. LANDELLS. Sixth Edition. With 200 Illustrations.

“A perfect magazine of information.”—*Illustrated News of the World.*

### COMICAL PICTURE BOOKS.

*Uniform in Size with “The Struwwelpeter.”*

**Two Shillings and Sixpence each, with Sixteen large Coloured Plates, fancy boards; or mounted on cloth; One Shilling extra.**

**Loves of Tom Tucker and Little Bo-Peep.** Written and Illustrated by THOMAS HOOD.

**Spectropia, or SURPRISING SPECTRAL ILLUSIONS,** showing Ghosts everywhere, and of any Colour. By J. H. BROWN. Fifth Edition.

“One of the best toy books we have seen.”—*Athenaeum.* [News.]  
“The illusions are founded on true scientific principles.”—*Chemical*

**Upside Down:** a Series of Amusing Pictures from Sketches by the late W. McCONNELL, with Verses by THOMAS HOOD.

“Ludicrous and amusing.”—*Illustrated Times.*

**Two Shillings, cloth elegant, with Illustrations, or with coloured plates, gilt edges, Three Shillings.**

**Fanny and Her Mamma, or EASY LESSONS FOR CHILDREN.**

**Good in Everything, or THE EARLY HISTORY OF GILBERT HARLAND.** By Mrs. BARWELL. Second Edition.

**Infantine Knowledge;** a Spelling and Reading Book on a Popular Plan. Tenth Edition.

**Little Lessons for Little Learners, in Words of One Syllable.** By Mrs. BARWELL. Eleventh Edition.

**Mamma’s Bible Stories, FOR HER LITTLE BOYS AND GIRLS.** Seventeenth Edition.

*Two Shillings each—continued.*

Mamma's Bible Stories (A Sequel to). Sixth Edition.  
 Mamma's Lessons, FOR HER LITTLE BOYS AND GIRLS. 16th Edition.  
 Silver Swan (The): a Fairy Tale. By MADAME DE CHATELAIN.  
 Illustrated by JOHN LEECH.  
 Tales of School Life. By AGNES LOUDON. Illustrations by  
 ABSOLON. Second Edition. Royal 16mo.  
 Wonders of Home, in Eleven Stories (The). By GRANDFATHER  
 GREY. Fourth Edition. Royal 16mo.

*Two Shillings each.*

Asem, the Man Hater: An Eastern Tale. By OLIVER GOLDSMITH  
 Illustrated. 4to.  
 Confessions of a Lost Dog (The). Reported by her Mistress,  
 FRANCES POWER COOPER. With a Photograph of the Dog from  
 Life, by FRANK HAES. Super-royal 16mo.  
 Illustrated Paper Model Maker. By E. LANDELLS.  
 Rhymes and Pictures ABOUT BREAD, TEA, SUGAR, COTTON, COALS,  
 AND GOLD. By WILLIAM NEWMAN. Seventy-two Illustrations.  
 Price 2s. plain; 3s. 6d. coloured.  
 \* \* \* Each Subject may be had separately. Cd. plain; 1s. coloured.  
 Sunday Evenings with Sophia, or LITTLE TALKS ON GREAT  
 SUBJECTS. Fcap. 8vo.  
 Home Amusements: a Choice Collection of Riddles, Charades,  
 Conundrums, Parlour Games, and Forfeits.  
 How to Make Dolls' Furniture AND TO FURNISH A DOLL'S HOUSE.  
 With 70 Illustrations. Small 4to, price 2s.  
 Key to Knowledge, or THINGS IN COMMON USE SIMPLY AND  
 SHORTLY EXPLAINED. Thirteenth Edition.  
 Scenes of Animal Life and Character, FROM NATURE AND  
 RECOLLECTION. In Twenty Plates. By J. B. 4to, fancy boards.  
 The Surprising Adventures of the Clumsy Boy ORASOS. By  
 CHARLES H. ROSA. With Twenty-three Coloured Illustrations.  
 The Remarkable History of the House that JACK Built. Illus-  
 trated and Illuminated by the Son of a GENIUS. Coloured.  
 The Young Vocalist: a Collection of Twelve Songs, each with an  
 Accompaniment for the Pianoforte, selected from Mozart, Weber,  
 Mendelssohn, Spohr, etc. By Mrs. MOUNCEY BARTHROLOMEW,  
 Associate of the Philharmonic Society. 4to, price 2s. imitation  
 cloth; or 3s. 6d. bound in extra cloth, gilt edges.

*One Shilling and Sixpence each, cloth elegant, with  
Illustrations.*

Always Happy, or ANECDOTES OF FELIX AND HIS SISTER SERENA, Angelo; or, THE PINE FOREST IN THE ALPS. By GERALDINE E. JEWSBURY. Illustrated by JOHN ABSOLON. Royal 16mo. Fifth Thousand. *New and Cheaper Edition.*

Among the Brigands, and other Tales of Adventure. By Mrs. BOWEN.

Animal Histories. THE DOG.

Animal Histories. THE ROBINS AND MOUSE.

Brave Nelly; or, WEAK HANDS AND A WILLING HEART. By M. E. B. Third Thousand.

Christian Elliott, or MRS. DANVER'S PRIZE.

Featherland; or, HOW THE BIRDS LIVED AT GREENLAWN. By G. M. FENN. Illustrated, F. W. KEYL, &c. Royal 16mo. Fourth Thousand. *New and Cheaper Edition.*

Female Christian Names, AND THEIR TEACHINGS. By Mrs. BROMFIELD. Gilt edges.

Grandmamma's Relics, AND HER STORIES ABOUT THEM. By E. E. BOWEN. Author of "Jack the Conqueror," "Dick and his Donkey," "Robin's Christmas Eve," etc.

Holiday Tales. By FLORENCE WILFORD. Author of "Nigel Bartram's Ideal," etc.

Humble Life: a Tale of HUMBLE HOMES. By the Author of "Gerty and May," &c. Illustrated by T. C. COLLINS.

Kingator's (W. H. G.) Child of the Wreck: or, THE LOSS OF THE ROYAL GEORGE. Illustrated by H. W. PETHERICK.

---

Heroic Wife (The); or, THE ADVENTURES OF A FAMILY ON THE BANKS OF THE AMAZON. Illustrated by H. W. PETHERICK. Fourth Thousand.

Lady Stoddart's Scottish Tales.

Lee's (Mrs. E.) Playing at Settlers; or, THE FAGGOT HOUSE. Illustrated by Sir JOHN GILBERT. Royal 16mo. Fourth Thousand. *New and Cheaper Edition.*

---

Twelve Stories of the Sayings and Doings of Animals. With Illustrations by J. W. ARCHER. New and Cheaper Edition.

Little Lisette, THE ORPHAN OF ALSACE. By M. E. B., Author of "Clement's Trial and Victory," &c. Fourth Thousand.

*One Shilling and Sixpence each—continued.*

**Little Roe-buck (The),** from the German. Illustrated by LOSSON. Fancy boards (2s. coloured).

**Live Toys;** or, ANECDOTES OF OUR FOUR-LEGGED AND OTHER PETS. By EMMA DAVENPORT. Illustrated by HARRISON WEIR. New and Cheaper Edition.

**Long Evenings;** or, STORIES FOR MY LITTLE FRIENDS. By EMILIA MAERYATT. Illustrated by JOHN ABSOLON. New and Cheaper Edition.

**Poetry and Nature.** SHORT POEMS AND TRIMMER'S INTRODUCTION. Tales for Boys. HARRY'S HOLIDAY, AND NEVER WRONG. Tales for Girls. MRS. LEICESTER'S SCHOOL, and RIGHT AND WRONG. The Three Wishes. By M. E. B. Royal 16mo.

**Trimmer's (Mrs.) New Testament Lessons.** With 40 Engravings. Wrecked, Not Lost; or THE PILOT AND HIS COMPANIONS. By the Hon. MRS. DUNDAS.

### THE FAVOURITE LIBRARY.

*One Shilling each, cloth elegant, or, the set in neat Box, 15s.*  
A Series of Works for the Young; each Volume with an Illustration by a well-known Artist.

1. The Eskdale Herd Boy. By LADY STODDART.
2. Mrs. Leicester's School. By CHARLES and MARY LAMS.
3. The History of The Robins. By MRS. TRIMMER.
4. Memoir of Bob, The Spotted Terrier.
5. Keeper's Travels in Search of His Master.
6. The Scottish Orphans. By LADY STODDART.
7. Never Wrone; or, the Young Disputant; & It was only in Fun.
8. The Life and Perambulations of a Mouse.
9. Easy Introduction to Knowledge of Nature. By MRS. TRIMMER.
10. Right and Wrong. By the Author of "ALWAYS HAPPY."
11. Harry's Holiday. By JEFFERYS TAYLOR.
12. Short Poems and Hymns for Children.

*The above may be had, Two Volumes bound in One, at 1s. 6d. each.*

*Also One Shilling each in various bindings.*

**Johnny Miller; or TRUTH AND PERSEVERANCE.** By FELIX WEISS, Price 1s.

**Hand Shadows,** to be thrown upon the Wall. By HENRY BURNSILL. First and Second Series, each containing Sixteen Original Designs. New Edition. 4to, price 1s. plain, 1s. 6d. coloured. "Uncommonly clever—some wonderful effects are produced."—*The Press.*

**Nine Lives of a Cat (The): a Tale of Wonder.** Written and Illustrated by C. H. BENNETT. Twenty-four Coloured Engravings, sewed, price 1s.

"Rich in the quaint humour and fancy that a man of genius knows how to spare for the enlivenment of children."—*Examiner*.

**Primrose Pilgrimage (The): a Woodland Story.** By M. BETHAM EDWARDS. Illustrated by MACQUOID. Price 1s.

"One of the best books of children's verse that has appeared since the early days of Mary Howitt."—*Nonconformist*.

**Short and Simple Prayers, with Hymns, for the use of Children.** Sixteenth Thousand. Price 1s.

### DURABLE NURSERY BOOKS.

*Mounted on cloth with coloured plates, One Shilling each.*

1. ALPHABET OF GOODY TWO SHOES.	8. LITTLE RHYMES FOR LITTLE FOLKS.
2. CINDERELLA.	9. MOTHER HUBBARD.
3. COCK ROBIN.	10. MONKEY'S FROLIC.
4. COURTSHIP OF JENNY WREN.	11. PUSS IN BOOTS.
5. DAME TROT AND HER CAT.	12. OLD WOMAN AND HER PIG.
6. HISTORY OF AN APPLE PIE.	13. TOMMY TRIP'S MUSEUM OF BIRDS.
7. HOUSE THAT JACK BUILT.	

**The Cowlip.** 1s. plain; 1s. 6d. coloured. | **The Daisy.** 1s. plain; 1s. 6d. coloured.

**The Australian Babes in the Wood:** a True Story told in Rhyme for the Young. Price 1s. boards, 1s. 6d. cloth, gilt edges.

*Price Sixpence each, Plain; One Shilling, coloured.*

1. British Animals. 1st Series.	Illustrated by HARRISON WEIR.
2. British Animals. 2nd Series.	
3. British Birds.	
4. Foreign Animals. 1st Series.	
5. Foreign Animals. 2nd Series.	
6. Foreign Birds.	
7. The Farm and its Scenes.	Illustrated by JOHN GILBERT.
8. The diverting history of John Gilpin.	
9. The Peacock at home, and Butterfly's Ball.	
10. History of Joseph.	
11. History of Moses.	
12. Life of our Saviour.	
13. Miracles of Christ.	

**His name was Hero.** By the Author of "The Four Seasons." Frontispiece by SIR W. CALCOTT, R.A. Super Royal 16mo. price 1s. sewed.

By the Same Author.

**How I became a Governess.** 3rd Edit. 2s. cloth; 2s. 6d., gilt edges.

**My Pretty Puss.** With Frontispiece. Price 6d.

**The Grateful Sparrow: a True Story.** Fifth Edition, price 6d.

**The Adventures of a Butterfly.** From the French of P. J. STAHL. Seven Engravings. Price 8d.

**The Hare that Found his Way Home.** From the French of P. J. STAHL. Second Edition. Price 6d.

#### WORKS FOR DISTRIBUTION.

**A Woman's Secret; or, How to MAKE HOME HAPPY.** Thirty-third Thousand. 18mo, price 6d.

By the same Author, uniform in size and price.

**Woman's Work; or, How SHE CAN HELP THE SICK.** 19th Thousand.

**A Chapter of Accidents; or, THE MOTHER'S ASSISTANT IN CASES OF BURNS, SCALDS, CUTS, &c.** Ninth Thousand.

**Pay to-day, Trust to-morrow; illustrating the Evils of the Tally System.** 7th Thousand.

**Nursery Work; or, HANNAH BAKER'S FIRST PLACE.** Fifth Thousand.

**The Cook and the Doctor; or, CHEAP RECIPES AND USEFUL REMEDIES.** Selected from the three first books. Price 2d.

**Home Difficulties. A Few Words on the Servant Question.** 4d.

**Family Prayers for Cottage Homes, with Passages from the Scriptures.** New Edition. Price 2d.

## Educational <sup>220</sup> Works.

### HISTORY.

**Britannia: a Collection of the Principal Passages in Latin Authors that refer to this Island, with Vocabulary and Notes.** By T. S. CAYLER. Illustrated with a Map and 29 Woodcuts. Crown 8vo. Price 3s. 6d.

**True Stories from Ancient History, chronologically arranged from the Creation of the World to the Death of Charlemagne.** Twelfth Edition. 12mo. 5s. cloth.

Mrs. TRIMMER'S Concise History of England, revised and brought down to the present Time. By Mrs. MILNER. With Portraits of the Sovereigns. 5s. cloth.

Rhymes of Royalty: the History of England in Verse, from the Norman Conquest to the reign of VICTORIA; with a summary of the leading events in each reign. Fcap. 8vo. 2s. cloth.

## GEOGRAPHY.

### Re-issue of

Pictorial Geography, for the Instruction of Young Children. Price 1s. 6d.; mounted on rollers 3s. 6d.

"A pretty and picturesque wall chart . . . It forms an excellent introduction to the study of maps."—*School Board Chronicle*.

"A very good picture map."—*Educational Record*.

"Admirably suited for teaching the meaning of common geographical terms."—*School Guardian*.

The First Book of Geography; specially adapted as a Text Book for Beginners. By HUGO KELD. Fourth Edition, revised. 18mo, 1s. sewed.

"One of the most sensible little books on the subject of Geography we have met with."—*Educational Times*.

Gaultier's Familiar Geography. With a concise Treatise on the Artificial Sphere, and two coloured Maps, illustrative of the principal Geographical Terms. Sixteenth Edition. 16mo, 3s. cloth.

Butler's Outline Maps, and Key, or GEOGRAPHICAL AND BIOGRAPHICAL EXERCISES; with a Set of Coloured Outline Maps, designed for the use of Young Persons. By the late WILLIAM BUTLER. Enlarged by the Author's Son, J. O. BUTLER. Thirty-sixth Edition. Revised 4s.

Tabular Views of the Geography and Sacred History of Palestine, AND OF THE TRAVELS OF ST. PAUL. Intended for Pupil Teachers, and others engaged in Class Teaching. By A. T. WHITE. Oblong 8vo, price 1s. sewed.

## GRAMMAR, &c.

A Compendious Grammar, AND PHILOLOGICAL HAND-BOOK OF THE ENGLISH LANGUAGE, for the use of Schools and Candidates for the Army and Civil Service Examinations. By JOHN GEORGE COLQUHOUN, Esq., Barrister-at-Law. Fcap. 8vo. Cloth 2s. 6d.

"A real and very useful accession to the list of English manuals."—*Educational Times*.

"We are not acquainted with any single volume that in such a small compass contains so much useful information."—*Scholastic Register*.

"Just the book we should like to see in Training Colleges, and placed in the hands of Pupil Teachers."—*National Schoolmaster*.

Darnell, G. Grammar made Intelligible to Children. New and Revised Edition. Price 1s. cloth.

Darnell, T. *Parsing Simplified: an Introduction and Companion to all Grammars; consisting of Short and Easy Rules, with Parsing Lessons to each.* Fourth Edition. Price 1s. cloth.

Lovechild, Mrs. *The Child's Grammar.* 50th Edition. 18mo, 9d. cloth.

**A Word to the Wise, or Hints on the Current Improprieties of Expression in Writing and Speaking.** By PARRY GWYNNE. Thirteenth Thousand. 18mo, price 6d. sewed; or 1s. cloth, gilt edges.

"All who wish to mind their *p*'s and *q*'s should consult this little volume." — *Gentleman's Magazine.*

Harry Hawkins's **H-Book**; showing how he learned to aspirate his **H**'s. Frontispiece by H. WEIR. Third Edition. Super-royal 16mo, price 6d.

"No family or schoolroom within, or indeed beyond, the sound of Bow bells, should be without this merry manual." — *Art Journal.*

**The Prince of Wales's Primer.** With 340 Illustrations by J. GILBERT. New Edition, price 6d.

**Darnell's Short and Certain Road to Reading.** Price 6d. cloth.

**The Modern British Plutarch, or Lives of Men Distinguished in the Recent History of our Country for their Talents, Virtues, and Achievements.** By W. C. TAYLOR, LL.D. 12mo. Second Thousand. 4s. 6d.; or 5s. gilt edges.

**Every-Day Things, or Useful Knowledge respecting the Principal Animal, Vegetable, and Mineral Substances in Common Use.** Second Edition, revised. 18mo, 1s. 6d. cloth.

"A little encyclopaedia of useful knowledge, deserving a place in every juvenile library." — *Evangelical Magazine.*

### ARITHMETIC AND ALGEBRA.

Darnell, G. *Arithmetic made Intelligible to Children.* Price 1s. 6d. cloth.

Cayzer, T. S. *One Thousand Arithmetical Tests, or THE EXAMINER'S ASSISTANT.* Specially adapted, by a novel arrangement of the subject, for Examination Purposes, but also suited for general use in Schools. By T. S. CAYZER, Head Master of Queen Elizabeth's Hospital, Bristol. Seventh Edition, with a complete set of Examples and Models of Work. Price 1s. 6d. Answers 1s. 6d.

**Key with Solutions of all the Examples in the One Thousand Arithmetical Tests.** By THOMAS S. CAYZER. Price 4s. 6d. cloth. The Answers only, price 1s. 6d. cloth.

**One Thousand Algebraical Tests; on the same plan.** Third Edition. 8vo, price 2s. 6d. cloth.

\* \* Answers to the Algebraical Tests, price 2s. 6d. cloth.

Theory and Practice of the Metric System of Weights and Measures. By Professor LEONE LEVI, F.S.A., F.S.S. Third Edition. Sewed 1s.

The Essentials of Geometry, Plane and Solid, as taught in Germany and France. For Students preparing for examination, Cadets in Naval and Military Schools, Technical Classes, &c. By J. R. MORELL, formerly one of Her Majesty's Inspectors of Schools. With numerous Diagrams. Price 2s. cloth.

NEEDLEWORK, &c., as required by the New Code.

Plain Needlework arranged in Six Standards, with Hints for the Management of Classes, and Appendix on Simultaneous Teaching. By the EXAMINER OF NEEDLEWORK TO THE SCHOOL BOARD FOR LONDON. Thirteenth Thousand. Price 6d.

Plain Knitting and Mending arranged in Six Standards, with Diagrams. By the author of "Plain Needlework." Seventh Thousand. Price 6d.

*New Work by the author of "Plain Needlework," &c.*

Plain Cutting Out for Standards IV., V., and VI., as now required by the Government Educational Department. Adapted to the principles of Elementary Geometry. Price 1s.

A set of the Diagrams referred to in the book may be had separately, printed on stout paper and enclosed in an envelope. Price 1s.

\* \* \* *These works are recommended in the published Code of the Educational Department.*

Artizan Cookery and How to Teach it. By a Pupil of the National Training School for Cookery, South Kensington. Sewed, price 6d.

#### ELEMENTARY FRENCH AND GERMAN WORKS.

Le Babillard: an Amusing Introduction to the French Language. By a FRENCH LADY Ninth Edition. 16 Plates. 2s. cloth.

Les Jeunes Narrateurs, ou PETITS CONTES MORAUX. With a Key to the difficult Words and Phrases. Third Edition. 18mo, 2s. cloth.

"Written in pure and easy French."—*Morning Post.*

The Pictorial French Grammar. For the use of Children. By MARIN DE LA VOYE. With 80 Illustrations. Royal 16mo, price 1s. 6d. cloth.

Bowbotham's New and Easy Method of Learning the French Genders. New Edition. 6d.

Bellenger's French Word and Phrase Book; containing a select Vocabulary and Dialogues. New Edition. Price 1s.

Der Schwätzer, or THE PRATELER. An Amusing Introduction to the German Language. Sixteen Illustrations. Price 2s. cloth.

## GEORGE DARNELL'S COPY BOOKS.

ADAPTED TO THE NEW CODE  
A SHORT AND CERTAIN ROAD TO A GOOD HAND-WRITING.

LARGE POST 16 Nos. Price 6d. Each

Being a Series of SIXTEEN COPY BOOKS, by GEORGE DARNELL, the first ten of which have on every alternate line appropriate and carefully written copies in Pencil coloured Ink, to be first written over and then imitated, the remaining numbers having Black Head-lines for imitation only, THE WHOLE GRADUALLY ADVANCING FROM A SIMPLE STROKE TO A SUPERIOR SMALL HAND

A SURE GUIDE TO A GOOD HAND-WRITING

A Series of TWENTY-FOUR COPY BOOKS on a similar plan.

OBIONG FOOLSCAP 24 Nos. Price 3d each, green covers

Or on superior paper, marble covers, price 4d. each.

## UNIVERSAL COPY BOOKS,

A Series of Sixteen Copy Books, on the same Plan.

FOOLSCAP 4to Price 2d each.

## TAKING TALES FOR COTTAGE HOMES.

In Plain Language and Large Type. Edited by W. H. G. KINGSTON.  
With Engravings. Crown 8vo, price 4d.

1. The Miller of Hillbrook. A RURAL TALE.
2. Tom Trueman, a SAILOR IN A MERCHANTMAN.
3. Michael Hale and his Family in Canada.
4. John Armstrong, THE SOLDIER.
5. Joseph Budge, THE AUSTRALIAN SHEPHERD.
6. Life Underground; or, DICK THE COLLIERY BOY.
7. Life on the Coast; or, THE LITTLE FISHER GIRL.
8. Adventures of Two Orphans in London.
9. Early Days on Board a Man-of-War.
10. Walter the Foundling: A TALE OF OLDEN TIMES.
11. The Tenants of Sunnyside Farm.
12. Holmwood; or, THE NEW ZEALAND SETTLER.

These Tales may also be had in Four volumes. Price 1s. 6d. each,  
or 2 vols. extra, 3s. 6d. each.













